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George Bancroft

THE

LIGHT

OF

NATURE

PURSUED.

BY

EDWARD SEARCH, Esq;

VOLUME II. PART I.

THEOLOGY.

Τὸ γνωστὸν τοῦ Θεοῦ φανερόν ἐστιν ἐν αὐτοῖς· ὁ γὰρ Θεὸς αὐτοῖς ἐφανέρωσε. Τὰ γὰρ ἀόρατα αὐτοῦ ἀπὸ κτίσεως κόσμου, τοῖς ποιήμασι νοούμενα καθορᾶται, ἥτε ἀΐδιος αὐτοῦ δύναμις καὶ θειότης.

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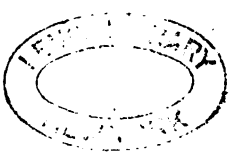

THE LIGHT OF NATURE PURSUED.

VOL. II. PART I.

CHAP. I.

SUBSTANCE.

HITHERTO I have proceeded only upon a view of human nature and the things we are daily converſant with; in order to frame ſome rules for our conduct, as well in the prudential management of our powers with regard to our own intereſts, as in joining our mutual endeavours towards promoting thoſe of one another, whereby we may render life more comfortable and happy. But as I propoſed in my general introduction to examine the foundations both of Religion and Morality, the Reader may think himſelf diſappointed in that, after having attended me through ſo large a portion of my work, he finds me

amuſing him with one of them alone without mentioning a ſingle word of the other, and that in ſuch manner as to leave it groſſly defective at the concluſion. I am now going to ſatisfy him in this particular, by which, if purſued with tolerable ſucceſs, he may expect I ſhall be able to reſtore morality to that completion whereof he thinks I have defrauded her.

Let us now therefore enter upon a careful examination of what other principles may be found beſides thoſe we have already collected, and puſh our reſearches beyond the ſcene exhibited by our ſenſes and our experience. And as this attempt will lead us to take a view of external nature and things inviſible or which can be diſcovered only by the eye of reaſon, we ſhall have an ample field to expatiate in, diſtant objects and extenſive proſpects to contemplate, no leſs than univerſal Nature comprehending things viſible and inviſible with the connections and dependencies running between them, ſo far as the feeble optics of human underſtanding can reach to diſcern them. In the progreſs of this taſk I muſt learn to handle the teleſcope, the vaſtneſs of whoſe ſcenes may demand as cloſe an attention to view them diſtinctly as our minute obſervations of the microſcope have done before. For the objects we are ordi-

ordinarily converſant amongſt lie within a certain compaſs of magnitude: whatever greatly exceeds or greatly falls ſhort of the ſizes familiar to our acquaintance, carries a ſtrangeneſs and unwieldineſs forbidding and irkſome to thoſe who read for amuſement only. The deſcription of them muſt not be read but ſtudied, and the deſcriber can do no more than ſtrive to make the ſtudy as lit-tle laborious as poſſible. But I cannot yet conſent totally to lay aſide the microſcope, for I pretend to no extraordinary illumination nor direct intuition of things inviſible, but can hope only to inveſtigate them by the things that are ſeen: therefore it behoves me to attend ſtill for a while to minute objects, being deſirous to lay the remainder of my foundation with the ſame exactneſs I have endeavoured at before.

2. But before we enter upon a view of external nature or proceed to inveſtigate cauſes from their effects, in order to diſcover what powers or what laws there may be to govern the inviſible world, it will be proper to conſider whether we are likely to have any concern in their operation. For as Epicurus rightly obſerved that what ſhall happen after we ceaſe to exiſt is nothing to us, it will be ſuperfluous to enquire into the ſources of enjoyment or ſuffering in future times, until we

have ſatisfied ourſelves that we ſhall ſtand in a capacity of being affected by them. Nothing is more certain than that this bodily frame of ours ſhall be diſſolved in a few years; we daily ſee inſtances of its mouldering into duſt or putrefying into corruption, ſo that we cannot flatter ourſelves with its having a long continuance: but it has been made appear in our ſurvey of human nature, that the body ſerves only as a channel of conveyance to the mind, which is properly ourſelves as being our ſentient principle which perceives whatever is perceived by us, acts all that we do, and receives notices from external objects through the corporeal organs. So that our capacity of good and evil to come muſt depend upon the durableneſs of the mind: concerning which we can know nothing from ſenſe or experience, for they inform us not what becomes of the mind upon diſſolution of the body, we do not ſee it moulder and putrefy like that, yet neither do we ſee it give any ſigns of life or exiſtence; nor can we learn anything from the teſtimony of others concerning the inhabitants of that country from whoſe bourne no traveller returns. Therefore we muſt endeavour to gather by deduction of reaſoning from ſuch obſervations as experience has afforded us, what is the conſtitution of the mind and whether

whether it be of a laſting or a periſhable nature. I do not forget that we are taught to believe a reſurrection of the body, and that ſome have maintained that the mind, altho' naturally periſhable, may be preſerved in Being by the agency of a ſuperior power. I would not be thought to reject either of thoſe opinions, but it is obvious that the conſideration of them cannot fall within the compaſs of my preſent plan: for none ever attempted to ſhow by the meer light of reaſon either that the body ſhall riſe again or that the mind, if corruptible in itſelf, ſhall be continued longer than the term aſſigned her by nature. Wherefore the nature of the mind is the thing to be enquired into: and all who have examined this point ſeem agreed to reſolve it into another, namely, whether the mind be a compound made up out of ſeveral materials, or a pure ſimple ſubſtance without parts or mixture.

For it was admitted on all hands that whatever was generated may be corrupted; the productions of nature being only ſo many various aſſortments of matter mixed together by the mutual action of the elements upon one another, as that action never ceaſes to operate, it muſt of courſe deſtroy what itſelf had produced: ſo that the forms of bodies whereon their eſſence depends continually change and

fluctuate; what is one thing to day becoming another to morrow and a quite different the day after. Thoſe therefore who would ſhorten our exiſtence to the period of human life, proceeded upon a ſuppoſition that the finer parts of the elements, united properly together in a certain organized ſtructure, might produce an animal endowed with life, ſenſe and motion, that the degree of ſence depended upon the greater or leſſer nicety of this organization, and that thought and reaſon could not ſubſiſt out of the human form. So they held that the mind itſelf was nothing elſe beſide a curious aſſortment of elementary particles ranged together after a particular manner, or a harmony reſulting from the nice order and mutual congruity wherein they were diſpoſed. This being laid down it would follow inconteſtably that the laws of nature, which have brought thoſe elements into the order wherein they ſtand, may as eaſily ſeparate them again and diveſt them of that ſenſe and reaſon they had acquired by their contexture: in which caſe the mind muſt be deſtroyed upon diſſolution of the body, nor can the harmony ſubſiſt after the ſtrings that gave the notes compoſing it are broken aſunder. From whence they juſtly inferred that the end of life muſt be the end of Being, and that we can have no concern

with

with anything that ſhall happen after our deceaſe.

3. Thoſe on the other hand, who would extend our duration beyond the preſent ſtate, generally ſet out with ſhowing the abſurdity of imagining that any combination of ſenceleſs matter could produce ſence and reaſon, which muſt be primary qualities belonging eſſentially to the ſubject wherein they are found and not reſulting from any others. They inſiſt that Mind is a kind of fifth element, different from the other four, not producible out of them, and totally diſſimilar from that firſt matter, whether water or fire or atoms or whatever elſe can be ſuppoſed, whereout the elements themſelves originally ſprung: that being no production of nature, it is not deſtructible by any law or power of hers: that when united to body, it does not inhere therein as an accident or modification, but is joined thereto as a diſtinct ſubſtance, and may be ſeparated again without loſing its exiſtence. They conceive that upon ſuch ſeparation it may perform its proper functions better and freer than while encumbered with fleſh: or if it ſhould become incapable of exerciſing its powers, it will nevertheleſs retain the powers themſelves, and continue capable of being united to another organization which may prove equally fitting for

for its purpoſes with that it now inhabits. From whence they as juſtly infer that death is not an end of Being, but at moſt only a ſuſpenſion of ſence; therefore it behoves us to carry our thoughts beyond this preſent ſtate to what ſhall happen hereafter, as being matters wherein we ourſelves may have an actual concern.

4. This queſtion then concerning the ſimple or compounded nature of the mind I am to begin with: but before entering upon the diſcuſſion I conceive there is ſomething to be done preparatory thereto for aſcertaining the terms we muſt employ, without which we cannot proceed with exactneſs in our reaſonings: and as our ideas of compounding ſeem a little variable and undetermined, I ſhall begin with endeavouring to ſettle what is to be underſtood by the terms Compoſition and Subſtance.

5. I have met with people who pretend they have no idea of ſubſtance becauſe they cannot comprehend a naked ſubſtance diveſted of all its accidents: they want to ſee one taken out from its qualities and laid upon a table for them to puſh about and examine, like the ſpring of a watch taken out from the work. But this is a moſt unreaſonable expectation, for though I ſee no impoſſibility there may be a ſubſtance devoid of

of all qualities whatſoever, it is not at all probable there ſhould, becauſe it could be of no uſe either to itſelf or anything elſe: yet if there were any ſuch we could never know it, for ſubſtances diſcover themſelves to us only by their qualities, and thoſe qualities are as irrefragable an evidence of their exiſtence as we could have were we able to diſcern them without. What we term qualities, as Mr. Locke obſerves, are powers of affecting us, or of cauſing alterations in other ſubſtances making them affect us differently from what they did before: thus whiteneſs in ſnow is the power of affecting us with the ſenſation of white, heat in fire is the power of affecting us with the ſenſation of warmth, and of melting wax whereby it is made to exhibit another appearance than it did while cool and hard. But an act of power is the operation of ſome agent, of which therefore it gives as full evidence as of the power thereto belonging; for there cannot be power with nothing to exert it. So that naked quality is no more comprehenſible than naked ſubſtance, and you might as well undertake to lay a ſubſtance devoid of quality upon the table as to lay whiteneſs, ſquareneſs, ſoftneſs, coolneſs, without laying ſomething white or ſquare or ſoft or cool: now if this aſſertion be intelligible, as I preſume it

is,

is, you muſt have an idea of every term employed in it and conſequently of the word Something, if then there be a meaning in the word you may take that for your idea of ſubſtance.

6. But the quality that moſt commonly gives us evidence of ſubſtance is ſolidity or tangibility, therefore the vulgar do not count thoſe things ſubſtantial which they cannot feel compact in their hands, ſuch as froth, vapour, ſmoke, light, odours or the like: and they frequently conceive a production of ſubſtance, as in the growth of plants; or the deſtruction of it, as in burning wood or evaporating water over a fire. But thoſe who uſe ever ſo little reflection know that our ſenſes cannot in any manner be affected without an agent to operate upon their organs: we cannot ſee light without ſomething ſtriking upon our eyes, nor ſmell an odour without ſomething entring our noſtrils; we cannot perceive a ſmoke or vapour unleſs there be ſomething floating about in the air to obſcure it, nor diſcern the colours in a bubble unleſs there be ſomething capable of refracting the light. They know likewiſe that our diſcernment of things, though an evidence of their being, is not an evidence that they began to be juſt when we diſcerned them: nor is the loſs of that diſcernment an

evi-

evidence of their ceaſing to be, but only of their removing beyond the reach of our ſenſes. If I find my table duſty I ſhall not think the duſt a new production, but that it was flying about in the air before I perceived it, and is now only gathered into a thickneſs to make it viſible: and if on my return after going out of the room I find the table clean, I ſhall not ſuppoſe the duſt abſolutely deſtroyed, but only ſwept away ſomewhere out of my ſight. So when I ſee a tree which I remember to have been a ſlender twig, there is no need I ſhould imagine the great acceſſion of ſubſtance a new production, but drawn from the earth, the air or the clouds, wherein it lay diſperſed and undiſtinguiſhed: and when the tree is cut down and conſumed in the fire, there is no occaſion I ſhould believe it reduced to the little ſubſtance of aſhes left behind, but that the reſt is diſſipated in imperceptible portions in the ſame manner as before their coming into the tree. Yet when ſubſtances by their minute diviſions are withdrawn from our obſervation, we ſtill apprehend them poſſeſſing qualities had we ſenſes acute enough to be affected by them: for we are ready to think that we could feel the ſmalleſt particles if we had fingers fine enough to take them up, and that if one were preſſed ever ſo ſtrongly on each ſide by

two

two others of equal bulk, it would keep them from coming into contact. Thus ſome qualities, eſpecially thoſe of reſiſtance and ſolidity, ſeem to be inſeparable companions of the ſubſtances we are ordinarily converſant with or exerciſe our thoughts upon: and all qualities, during their continuance, are inſeparable from the ſubſtances whereto they belong nor can be removed from them without ~~their~~ being loſt, for if you rub over a piece of paper with ink, the whiteneſs is not baniſhed into another quarter but is abſolutely deſtroyed.

7. This neceſſary connection of qualities with ſome ſubſtance makes them an evidence to us of its exiſtence, for if there could poſſibly be whiteneſs without an object to exhibit it, I could not conclude from ſeeing a whiteneſs that there is ſomething white lying before me. This likewiſe may convince us that exiſtence belongs ſolely to ſubſtance, quality having none of its own, being no more than a particular mode of exiſtence in whatever poſſeſſes it. Not but that quality has a reality concerning which we are liable to miſtake, for a child on ſeeing an evening miſt riſe out of a pond may take it for ſmoke and think the water muſt be hot: but what elſe is this than an apprehenſion that the water is ſo conditioned as that it will ſcald him

him upon putting in his finger, whereas in reality the condition of the water is otherwiſe and would feel cold to the touch; ſo that the exiſtence of coldneſs is nothing elſe than the water being in ſuch a ſtate as might affect our fleſh with a ſenſation of cold upon being put into it. I am not unapprized that Plato ſuppoſed qualities might ſubſiſt without any ſubſtance to poſſeſs them, becauſe while we can form an idea of them they may have a reality in our thoughts: but I beg leave to obſerve that our idea of a thing is not the thing itſelf, for one may remain after the other ceaſes and may ſubſiſt though the other never had a Being. I know well enough what the tooth-ach is though now quite free from it; I remember the tranſactions of yeſterday but the occurrences themſelves are clean gone and over; I have a clear idea of a Cyclops, a Centaur, a Chimera, yet without believing there ever were ſuch things in nature. Nor do I find other people backward in denying the reality of qualities they conceive readily enough: ſome in their melancholy moods, when put out of humour by egregious impoſitions, will inſiſt there is no ſuch thing as honeſty in the world, they do not mean that they have no idea of it, but in their notion of its reality they refer to ſome ſubſtances poſſeſſing it, and you muſt underſtand them

ſaying

ſaying there is no man who poſſeſſes a principle of perfect honeſty. Beſides that the reality of a quality in one ſubject is not preſerved by its remaining in others: the whiteneſs of this paper does not depend upon the whiteneſs of that, but would continue the ſame though there were nothing elſe white in the world beſides; and if I blot it over, the whiteneſs of that particular paper is utterly gone out of all reality, though I ſhould have ever ſo many ſheets in my cloſet ſtill unſullied and ſhould remember ever ſo well how it looked before I ſpoiled it.

8. From hence it appears that identity carries another meaning when applied to ſubſtance than what it does when applied to quality, in the latter being nominal only not real: for though we currently ſay that two ſheets of paper have the ſame whiteneſs, yet upon colouring one the whiteneſs of that is abſolutely deſtroyed, the other remaining ſtill unhurt, but it is abſurd to ſuppoſe the ſame thing can ſubſiſt and be deſtroyed at the ſame inſtant. Nevertheleſs our uſes deriving from the qualities of things, it concerns us chiefly to take notice of qualities; for which reaſon whatever continues to ſerve our uſes in the ſame manner, we denominate the ſame thing notwithſtanding any change of ſubſtance there may have been in it. Thus we count a river the

ſame

ſame although perpetually changing its waters, provided thoſe waters be equally fit for our ſervices in ſwimming or rowing or waſhing or drinking. Here it is eaſy to ſee that the identity of form only in the river continues all along, the ſubſtance every moment varying: as on the other hand if you mould a piece of wax with your fingers it may become ſometimes round, ſometimes ſquare, ſometimes triangular according as you faſhion it, the wax being ſtill the ſame. Therefore there is a formal or ſpecific and there is a ſubſtantial identity, the former when ſeveral ſubſtances ſtand ſo conditioned as to affect us exactly in the ſame manner, the other when we are ſatisfied the ſubſtance remains the ſame whether appearing under the ſame or various forms. Specific identity is a branch of the formal, being of thoſe qualities which conſtitute its eſſence, adapt it for ſome particular uſes and gain it a particular name: thus the wax while moulding into different figures ſtill is wax, but if laid long in a damp place where it loſes its oylineſs the eſſence of wax is gone and it becomes dirt or ſome other kind of thing, yet ſubſtantially the ſame it was before. As we can know ſubſtances only by their qualities, if we have a dozen eggs in all reſpects ſimilar which we would diſtinguiſh apart, it is common to

mark them with No. 1, 2, 3, &c. in order to know them again ſeverally after being taken out of our ſight: for this reaſon I ſuppoſe ſubſtantial is often called numerical identity as a ſynonimous term. Subſtantial or numerical identity cannot be loſt though we may not know where to find it, for one ſubſtance cannot be changed into another but muſt always continue the ſame it ever was, it can only ſucceed in the room of another or aſſume its form upon that being removed to ſome other place: and though qualities be ſo far unchangeable as that ſquareneſs can never be roundneſs, yet are they periſhable and producible; for when the wax is new moulded the ſquareneſs it had is totally loſt, not flown off to ſome other quarter, and the roundneſs ſubſtituted in its place is a new production not drawn from any fund where it had lain concealed before.

9. As to the unity of ſubſtances, that is not eaſy to be aſcertained for want of acuteneſs in our faculties which require numbers of them to affect us in any manner, for frequent experiments aſſure us that all the objects we diſcern are compoſed of ſubſtances numerically diſtinct from each other, which when ſeparated are ſingly too feeble to touch any of our ſenſes; we cannot ſee them nor feel them nor count their numbers but are per-

perpetually perplexing ourſelves with ſubtile queſtions concerning their infinitude. But tho' we cannot tell what is one we may know what is many, for whenever we perceive diſtinguiſhable parts in an object we may reſt aſſured it contains as many ſubſtances as there are parts we can diſtinguiſh. If I have a gallon of wheat before me I may pronounce that the gallon conſiſts of ſo many ſubſtances as there are grains in the veſſel, though I cannot reſtrain them to that number becauſe not knowing how many duſts of flour or particles of bran, all of them diſtinct ſubſtances, lie in each grain; and if I pitch upon ſome particular grain and then ſhake the veſſel I may ſtill remain ſatisfied that my grain is ſomewhere among the reſt, numerically the ſame as when I took notice of it and not changed into any other, though I cannot now find it again. Or ſuppoſe the wheat ſent to mill, the flour kneaded into dough, then baked into bread, and the bran all employed to ſtuff pin cuſhions: I cannot doubt that the ſubſtance of my grain, although altered in form and diſperſed indiſcriminately among that of the other corn, ſtill ſubſiſts undiminiſhed in the meal, the bread and the cuſhions, and that all together contain at leaſt the ſame number of ſubſtances as there were grains in the gallon, beſides an acceſſion

of others in the water, the yeaſt, and ſilk coverings to hold the bran. And as the corns in the gallon, and particles of flour or bran in the corns, have each a diſtinct Being and exiſtence of their own independent on the reſt and which receives no increaſe by their junction, hence it ſeems to follow that the gallon has no other exiſtence than that of the corns, and the corns none other than that of the flour and bran compoſing them; that nature has made all things in individuals, and though we cannot tell whether what we commonly term ſo conſiſts of finite or infinite parts, yet that it muſt derive its exiſtence originally from ſingle ſubſtances how many ſoever there be that enter into it.

10. I have obſerved before that though qualities are our ſole evidence of the ſubſtances poſſeſſing them, yet we do not imagine the ſubſtance deſtroyed upon loſing its qualities: in like manner though the operations of qualities upon ourſelves or upon other ſubſtances when we can perceive them are our ſole evidence of their reality, yet we apprehend the qualities more permanent than their operations and not loſt when they ceaſe: for if I take a ſnow ball into my hand I ſhall be ſatisfied of its coldneſs by my ſenſation, but if I throw it out upon the graſs where I no more feel it cold nor perceive its effects upon

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any thing elſe, nevertheleſs I ſhall ſtill remain perſuaded it retains the quality of coldneſs; but if I put it into a ſaucepan over the fire it will loſe its ſpecific eſſence, being turned into water, and may exchange its quality of freezing for that of ſcalding. Hence it appears there are qualities which a ſubſtance may aſſume or lay aſide according to the texture and poſition of its component ſubſtances or motions among them, and theſe we term ſecondary qualities: others which we conceive inſeparable from all ſubſtances falling under the obſervation of our ſenſes, whether ſingle or in junction with others, ſuch as ſolidity, impulſe and mobility, and theſe are called primary qualities. Which primary qualities are a neceſſary foundation of the others, for without ſolidity a knife could not have the quality of ſharpneſs to force its way into whatever we employ it to cut; without motion and impulſe the lucid darts of day light, as Lucretius calls them, could not affect our optics with colours; nor could bodies diſcover to us their figures without reſiſtance to our touch or force to throw off the light in a particular manner upon our eyes.

CHAP. II.

Compound Substances.

WHOEVER will conſider the idea of Compoſition a little attentively muſt perceive it to be a particular manner of juxtapoſition, and to contain ſeveral ſpecies under it, as joining, co-aleſcing, mixing, incorporating and the like. But every bringing of things together does not form them into a compound: if I beſpeak a table of Hatchet the carpenter which I will needs have him make up in my preſence, he prepares the materials at home and brings them all together in a hand baſket; but I do not conceive them in that poſition to be anything until he has joined the ſeveral parts properly to one another, and then I look upon the boards, the legs, the hinges, the ſcrews, the glue and whatever elſe he has put among them, as one thing, which I call a table. So when the cook brings out her flour, her ſewet, her ſugar, her raiſins, they ſtill are but what they were before though laid ever ſo cloſe upon the dreſſer; nor do we even then conſider them as ſingle things but call them heaps of parcels, which are nouns of multitude, un-

until ſhe has mingled them well into one maſs which then becomes a pudding.

2. In like manner nature forms her productions out of materials collected from the elements, but with this difference, that as ſhe works in a finer manner than art can imitate, we ſeldom know the ingredients ſhe uſes until they appear in the compoſition. Thus the particles conſtituting a plant could not be diſtinguiſhed whilſt they lay mingled in the mould, the water or the air, nor do we perceive the ſources at all diminiſhed from whence they were drawn, wherefore we are vulgarly apt to regard them as new Beings not framed out of any others. Sometimes indeed we may know partly what are the ingredients employed, as when a farmer enriches his ground with manure; but then the manure muſt be divided by putrefaction into imperceptible parts before it be fit for nature to work upon. Nevertheleſs it is univerſally agreed by all men of thought and conſideration that the ſubſtance of every thing we ſee produced was exiſting before, and is only brought together into that form and order which renders it the object of our notice.

3. Nor does the mind want a power of compounding things that nature has not joined, or of making arbitrary junctures for

which ſhe has given no foundation; as a flock of ſheep, a nation of men, a pariſh or a bay. For the ſheep of a flock or men of a nation have no more natural connexion with one another than with thoſe of any other drove or country, the lands of a pariſh lie as cloſely contiguous to thoſe of the next as they do to any lands of the ſame, and the waters of a bay are as much mingled among the waters of the ocean as they are with one another: yet we conſider each of them as one thing and call them by names of the ſingular number.

4. Thus we ſee compounds produced three ways, by nature, by the hand of man and by the imagination; and all three proceed in the ſame manner, to wit, by ſelecting materials from the funds where they are to be had and placing them together ſo as to ſtrike our obſervation as one object. Nevertheleſs they proceed differently in this reſpect, that the two former make a real change of poſition in the things they compound, whereas imagination can work only upon its own ideas, throwing them into a particular order or combination without actually removing anything from its place. But all compoſition whether actual or mental bears a reference to the thought, for the eſſence of things depends upon the uſes we have for them, the properties

ties we obſerve in them, or the manner wherein they affect our ſenſes: therefore we conceive them to remain the ſame ſo long as they continue to exhibit the ſame appearances, how much ſoever the component parts may be ſhifted: thus we eſteem the Thames the ſame river we ſaw laſt year altho' the waters of it have been changed a thouſand times. Nor do we conſider every thing as entring into a compound if it does not anſwer our purpoſe ſo to do, altho' joined as cloſely as thoſe we call conſtituent parts: if while Hatchet makes up the table he careleſsly drops a ſpoonfull of glue which faſtens a chip to it; or if while our backs are turned an unlucky boy ſcrews a piece of deal upon one of the leaves, we do not reckon the chip or the deal a part of the table. So neither do we eſteem an oak apple as part of the tree but an excreſcence, altho' adhering as firmly to the leaves as they do to the branches. We ſay oyl will not incorporate with vinegar, becauſe after ſhaking them ever ſo long we can ſtill diſtinguiſh them floating amongſt one another: but water, arrack, orange juice and ſugar, compoſe punch, which we reckon a new production, becauſe it affects our ſenſes with a taſte and appearance the ſeveral ingredients had not before. The blood, humours and fat in our bodies, ſeem to enter into the compo-

compoſition of them, but not the breath in our lungs nor victuals in our ſtomachs; becauſe we perceive theſe continually coming and going, but we do not ſee when the others fly off or are renewed. Nature unites nothing, not even the ſtrongeſt of her works, any otherwiſe than by holding the parts of them firmly together. It is now I think generally agreed among the learned that that quality of bodies called the attraction of cohefion, which keeps them united, is the effect of a certain ſubtile fluid preſſing ſtrongly againſt them on the outſide: ſo that if a carpenter ſetting an upright poſt to ſupport a floor, upon finding it too ſhort ſhould drive in a plank between, the poſt, the plank and the beam above, although manifeſtly diſtinct from one another, would be as truly united as the parts of iron, marble or other the moſt compact and durable ſubſtances.

5. But it ſeems this ſubtile fluid, which makes the particles of matter cohere ſo firmly when preſſing them on the outſides, if it can get between them, rends them as forcibly aſunder, whence proceeds their elaſticity; ſo that the heavieſt bodies, upon having their parts diſſipated beyond their ſphere of attraction, may become the lighteſt: and Sir Iſaac Newton ſuppoſes air itſelf generated this way out of metals and minerals. Thus all production

duction is no more than an aſſortment of minute bodies, imperceptible before, in ſuch manner as to render them diſcernible; or elſe throwing them into new forms from whence ſhall reſult qualities they had not in their former ſtate: and all deſtruction no more than a diſſipating of them again, or elſe ſuch a change of their contexture as ſhall diveſt them of the qualities they had by their firſt union. And it depends upon our cuſtomary manner of conception and the uſe of language to determine what ſhall be deemed a change of one thing into another or only a circumſtantial change of quality in the ſame thing. Cream beaten into a certain conſiſtency by churning produces butter, but upon the ſame conſiſtency being deſtroyed by melting it continues butter ſtill, unleſs the careleſs cook, thinking of her ſweetheart, ſhould let the ſaucepan ſtand over the fire, for then we ſay it is turned into oyl. So butter kept to be ſour ſtill retains its eſſence; but dough grown ſour makes leaven, and well baked becomes bread, though raw beef well roaſted is nothing more than beef as it was before. What is it forms the ſtars into conſtellations beſides the conſent of aſtronomers? and that upon an apparent only without a real juxta poſition; for the ſtars of each conſtellation lie at immenſe diſtances from

from one another, and probably ſome of Aries may ſtand further apart from others of the ſame ſign than they do from thoſe of Libra in the oppoſite hemiſphere.

6. The more cloſely we conſider the nature of compounds the more fully ſhall we be convinced, that howmuchſoever they may change and vary, there is nothing new in them beſide their order and ſituation and the properties ariſing therefrom; and that they are nothing but collections or numbers of things brought together ſo as to affect us in a different manner from what they did when ſeparate, or joined into one idea by the arbitrary power of imagination. It is this collectiveneſs of compounds that enables us to divide them and furniſhes us with the idea of Whole and Parts, which being relative terms cannot ſubſiſt without their correlatives: for nothing is a whole unleſs as it contains all the members neceſſary to compleat it, and nothing a part unleſs in reference to other parts among which it is to be numbered. Every compound muſt have ſome quantity, and all quantity may be expreſſed by numbers, which alone renders it diviſible; for nothing beſide numbers is capable of being divided, but they being combinations of one another and ultimately of units, may either in fact or thought be ſepa-

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rated into them again. But what perplexes this matter is that arithmeticians underſtand by dividing a ſeparating into equal parts: but there may be an unequal as well as an equal diviſion, twenty may be parted into nine and eleven as eaſily as into two tens, or into three, four, ſix and ſeven as into four fives; and in this ſence there is no number indiviſible until you come to unit, lower than which you cannot go, for One cannot be divided. I know we often proceed to fractions ſuppoſed to expreſs leſs than unit, but in this notion we impoſe upon ourſelves by ſhifting our idea s and conſidering that as a multitude which before we conſidered as one; therefore we cannot make a fraction without multiplying firſt before we divide. He that would part a ſum of money into ſeveral ſhares proceeds firſt to ſee how many pounds belong to each, if there be a remainder he multiplies it by twenty to find the ſhillings he ſhall allot beſide, and ſo on to pence and farthings; if there ſtill be a remainder and he would be very exact, having no lower denomination of money to reduce into, he makes an arbitrary coinage in his own mind and ſuppoſes his farthings to contain ſo many pieces as there are ſhares into which he would diſtribute them, which he ſets down for the denomination of his fraction: ſo a farthing

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with him is no more a unit than a pound was at firſt, nor is ſeven thirteenths of a farthing leſs than a unit any more than three pence or ſeven ſhillings, which everybody will allow to be whole numbers.

7. Hence and from what has been ſaid in the laſt chapter may be gathered that compoſition works a different effect upon qualities from what it can do upon ſubſtances: for quality having no exiſtence of its own but being a particular manner of exiſting in ſubſtances, it is eaſy to conceive how the manner will vary according to their various coalitions and that they may acquire powers of affecting us which they had not while ſingle, which will then be new productions having no reality before. This experience teſtifies, for things inviſible when ſeparate may become objects of ſight by being brought together in numbers: the vapours in a clear ſky we ſee nothing of, but when condenſed into clouds we diſcern them plainly enough; if you bring up a bottle of wine out of a cool vault in a hot day, tho' the air appear clear you will quickly perceive a dew gather upon the glaſs. Qualities mingled together may generate a new quality different from all its conſtituents: blue and yellow will make a green: all the variety of colours we behold are ſuppoſed to be only various combinations of the ſeven primary

primary, yet you cannot poſſibly tell which of them nor in what proportion go to form a brown: whiteneſs has been demonſtrated to ariſe from the joint action of all the ſeven operating equally upon you, yet the idea of white contains nothing of other colours as component parts. Poſition likewiſe will give ſubſtances a form which they had not ſingly; I may place a number of ſhillings ſo as to make a ſquare, the ſhillings themſelves ſtill continuing round; here then ſquareneſs has a reality in the number and roundneſs in the ſeveral pieces: ſo there is no abſurdity in a compound having forms and qualities of which the component members are deſtitute. But this holds good only with reſpect to ſecondary qualities which are producible and periſhable, as the primary are not; for a ſolid body cannot be made up of unſolid materials nor a movable body of thoſe that are incapable of motion. Therefore forms, qualities and eſſences, are producible by compoſition, deſtructible by diſſolution, and interchangeable among one another by the various ſtationing of the materials compoſing them: but with ſubſtances the caſe is otherwiſe, for however diſperſed or gathered together or however variouſly placed among one another, they continue always numerically the ſame without encreaſe or diminution of their numbers

bers or of their quantity, without tranſubſtantiation of any particular one into any other that was not of their number before. A pint of water is the ſame quantity whether lying in a baſon or evaporated in ſteam, and if there were five millions of particles in the veſſel there are ſtill the ſame identical five millions floating about in the air: it is not now water but ſtill is ſubſtance, having loſt its eſſence but not its exiſtence. Or if you ſuppoſe each aqueous particle to conſiſt of infinite parts which might then be ſeparated to infinite diſtances, yet in their diſperſion they would be the ſame quantity and number of ſubſtances, be it finite or be it infinite, as while collected in the particle: for it is inconceivable that nature can ever leſſen or add to the number of ſubſtances ſhe has already in ſtore, ſhe can do no more with them than congregate or diſſipate or aſſort them variouſly by changing their poſitions with reſpect to one another. But our buſineſs in common life lies ſolely with the qualities of things, not their ſubſtance, for ſo we find them convenient for our purpoſes we need not care what ſubſtance or particular materials they are compoſed of. If a vintner gives me the taſte of wine from a particular pipe in his vaults which I like, I may perhaps deſire to have a parcel out of that very pipe, becauſe doubtfull

doubtfull whether any of the others might pleaſe me ſo well: but if I could be aſſured he would ſend me wine of exactly the ſame quality and palatableneſs, I ſhould not be ſollicitous to have it drawn out of that or a different veſſel.

8. For this reaſon we ordinarily denominate things the ſame or different according to their appearances or aptneſs for our purpoſe, and when we give them thoſe epithets we oftener mean ſpecifically than numerically the ſame or different. Thus if I order my merchant to ſend me the ſame wine I had laſt ſpring, I can expect only wine conditioned alike; for I muſt know it is impoſſible he ſhould ſend the very wine I have already drank out. Or ſhould I beſpeak a box of the joiner, which on coming home appears not ſhaped according to my orders, I may be apt to ſay, this is not the thing I wanted: if he carries it back and afterwards brings me one exactly anſwerable to my intentions, I ſhall be content with it as being the very thing I would have, yet without regarding whether he had made it up of the ſame materials with the former reframed or of freſh ſtuff, and if he tells me I ſhall not alter my opinion thereupon. Therefore it is very material for having a juſt idea of identity and compoſition, to obſerve whether, when we

uſe the word Same, we underſtand thereby the ſame thing or the ſame ſort of thing: in the caſe before mentioned of ſending the ſame wine it is plainly to be underſtood wine of the ſame kind, and when I ſay of the ill-contrived box it is not the thing I wanted, my meaning muſt be that it is not ſuch a ſort of box as will ſuit my purpoſe, for had it been conſtructed and worked to my mind I ſhould have been equally ſatisfied whatever pieces of deal or wainſcot it had been made of. Cream churned into butter is ſtill the ſame thing it was before, but a different kind of thing and applicable to different uſes: the human body is certainly a different thing in a full grown man from what it was in the new born infant, yet is counted all along the ſame body becauſe conveying ſenſations and ſerving for an inſtrument of action to the ſame perſon. But the common language of mankind, adapted to the common occaſions of life, which require our attention to the kinds, the qualities and uſes of things, leads us perpetually to miſtake eſſence for exiſtence, ſpecific for ſubſtantial identity, and the manner of being for Being itſelf. Hence we look upon the production of a compound as a creation, and the change of a ſubſtance from one ſpecies into another as a tranſubſtantiation: for when a millwright has ſet up a wind

windmill we ſuppoſe there is a new thing, a new Being, produced, becauſe there is a new kind of thing having properties wanting before, for now it will turn with the wind and grind our corn, which the diſjointed materials could not do: and upon ſalt being thrown into water we think the ſalt has utterly loſt its Being and a new ſubſtance produced which we call brine. Whereas anybody with a little reflection may ſee that the materials of the windmill retain the ſame exiſtence when put together as while ſeparate, making only a more ſerviceable kind of thing than while lying in confuſion: and that the brine contains no more nor other ſubſtance than was in the water and ſalt when kept apart. So that all the operations of nature and art which have been performed in the preceeding year have neither added to the number of ſubſtances, be they finite or infinite, which were in being a twelvemonth ago nor diminiſhed nor changed them, but only caſt them into various kinds exhibiting different appearances and diverſity anſwering our uſes.

9. From all that has been obſerved above I think it muſt appear manifeſt that exiſtence belongs only to individuals, that whatever has a Being of its own cannot be divided, and that a compound is no ſubſtance other-

wiſe than to our apprehenſion, but an aggregate of ſo many ſubſtances as the component parts whereof it conſiſts. This will be ſeen plainer if we conſider the incorporations made by men: if our ſovereign lord the King embodies ſix hundred men into a regiment to be called the royal volunteers, the regiment taken collectively is no real Being but a creature of the imagination: I do not mean to call it a meer ſhadow, for the brave fellows compoſing it have a real exiſtence and I doubt not will prove themſelves effective ſubſtances in the day of trial, but the body has no other exiſtence than what belongs to the men; if it had there would be a power of creation by human management, for then upon the incorporation there muſt be ſix hundred and one Beings inſtead of only ſix hundred there were before. In like manner the productions of nature, which are only collections of imperceptible particles into a perceptible form, add nothing to the number of Beings, nor does anything properly deſerve that appellation unleſs what is uncompounded and indiviſible.

CHAP.

CHAP. III.

Divisibility of Matter.

BUT an objection may be thought to ariſe againſt the ſole claim of individuals to exiſtence from the diviſibility of matter, which according to the faſhion at preſent prevailing among the learned is held to be abſolutely infinite. For it may be urged that if all body conſiſts of parts, thoſe again of under parts, and ſo on for ever, we muſt either ſuppoſe with Dr. Berkeley that the bodies we daily ſee and handle are meer phantoms and ideas of the mind, or if we allow them a real exiſtence, we muſt needs reſt it at laſt upon ſomething which is itſelf a compound, becauſe after infinite diviſions we can no where find anything which is not ſo. But it muſt be granted that infinite diviſibility as well as finite has its difficulties, which I believe are gotten over principally by the definition generally given to matter of an extended ſubſtance. If you aſk what is meant by the term extended, they tell you it is the having parts without parts, that is, extraneous to one another. Now for underſtanding this explanation we muſt

obſerve that appearances or ideas may have parts within parts coextenſive together throughout the whole compound; thus our idea of a piece of gold contains the ideas of weight, compactneſs, ductility, fuſibility, with many others as parts thereof, and each of theſe is diffuſed equally through the whole piece: but when we conſider its bulk and ſubſtance, the right ſide does not reach into the left nor is the top diffuſed among the bottom, ſo that the ſubſtantial parts do not lie within one another but each has its ſeparate ſtation. Thus to ſay that matter is diviſible becauſe extended, amounts to no more than ſaying it is ſo becauſe it conſiſts of parts diſtinct and removable from one another: a pretty way of proving the point, being no better than the ladies reaſon, it is diviſible becauſe it is.

2. It ſeems a more colourable argument when our conception is appealed to, and we are defied to imagine any particle which muſt not at leaſt have two ſides diſtinct and diſtinguiſhable from one another. I may perhaps by and by accept the challenge, and attempt to ſhow that we do not always conceive of things as having two ſides: but for the preſent let us ſee what can be concluded from this argument ſuppoſing the premiſes aſſumed in ſupport of it were true. It has been ſhown

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by Mr. Locke and in our chapter on Reflection that our ideas concerning external objects are originally derived from ſenſation, all we can do for ourſelves is by repeating, compounding, aſſociating, dividing or extracting from what we have received by that channel. Nor is it certain we can form any conception of magnitude greater or leſs than what we have ſeen: we talk indeed currently of immenſe ſpaces, of millions of miles, of vortices and planetary ſyſtems; but our imagination keeps all the while within the ſame compaſs it would do if we were to contemplate any meaſurable portion of ground we could diſtinguiſh with our eyes. We proceed in the ſame manner a perſon would who ſhould undertake to draw any plan aſſigned him upon a ſlate: if he be ſet to deſcribe a garden, he marks the walks, the beds, the groves, the buildings, in their proper dimenſions, ſo as that the whole may juſt fill up the ſpace he has to delineate them upon; if a county, then ſpacious roads and wide rivers run in the place of walks, and you find towns occupy the ſpots where there ſtood alcoves before; if the terraqueous globe, the pariſhes are loſt thro' their minuteneſs and their room is taken up by mountains, kingdoms, ſeas and oceans; if the ſolar ſyſtem, he places a little ball in the middle to repreſent the Sun,

draws the planets with their ſatellites rolling round at proper diſtances, and makes the orbit of Saturn touch the edges of his ſlate: thus when he is put to take in a larger ſpace, he does not enlarge his draught but contracts his ſcale, and leſſens his figures to bring them within the limits to which he is confined. Juſt ſo it fares with imagination, whoſe ſcenes contain the ſame dimenſions whether we contemplate larger ſpaces or ſmaller: we fancy ourſelves climbing to immenſe heights, but in reality contract our objects to a conceivable ſize, and draw down immeaſurable diſtances within the length of our own line: like Prior's ſquirrel in the tinman's ſhop, who ſeemed continually mounting up in his rolling cage, but never advanced one ſtep higher beyond his own length.

3. Let us now invert the glaſs and turn our thoughts upon objects leſs than what ordinarily fall under our obſervation. He that would cut a hair as ſmall as poſſible may work a good while with a caſe knife by drawing the pieces doubled along the edge; when he has reduced them ſo ſmall that they will not double, he may lay them upon a ſmooth table and cut a little longer with a penknife; after he has done what he can this way, he may take a microſcope and by help of that, make two or three cuts more with a fine lancet:

lancet: there is now no more room for manual operation but if he will proceed further he muſt go to work with his imagination, which may chance to play him a ſly trick he is not aware of; for upon contemplating one of the little particles of his laſt diviſion he will find it grow into a magnitude having two diſtinguiſhable ſides which he can eaſily conceive ſeparated from one another, but upon their ſeparation each will immediately grow again into the former ſize; and thus he may go on without end until he be tired of the ſport. Hence it appears that our imagination is hemmed in by certain boundaries on both ſides beyond which it cannot paſs, nor can we conceive things greater or leſs than certain dimenſions, unleſs by diminiſhing or magnifying them we can bring them to a ſize diſcernible by our ſenſes; and that when we attempt an infinite diviſion we proceed without making any way, undoing as faſt as we work, and only dividing what we had magnified ourſelves: juſt as was ſhown before in the caſe of numbers, where we make a fraction ſuppoſed leſs than a unit by the proceſs of multiplication, how much ſoever we may fancy it dividing. Wherefore this argument drawn from our want of conception ſeems inconcluſive, it may convince us of a failure in our faculties but proves nothing concerning the nature

nature and conſtitution of matter: for ſince there is a certain meaſure below which we cannot form an idea, ſince experience and reaſon aſſure us there are particles far within that meaſure, how know we what we might conceive had we faculties piercing enough to diſcern them clearly?

4. Mathematicians tell us that points diſpoſed in a row form a line, that lines placed ſide by ſide make a ſuperficies, and that a number of ſuperficies laid over one another compoſe a ſolid. Let us try to anylize a ſolid into its conſtituent parts: we cannot by any contrivance actually take off a ſuperficies without thickneſs; if we go to work with our imagination, after having detached the ſurface from the main body we ſhall find it have an upper and an under ſide; endeavour to ſplit theſe ſides aſunder and ſuddenly you will find each of them by a kind of magic provided with a lining. The fault then lies in the imagination which cannot perform what is deſired of her for making the experiment; for thoſe who hold the diviſibility of matter ſurely muſt allow that every part may be ſeparated from every other, but in all ſolids there muſt be ſome parts lying uppermoſt; we only deſire you to take off theſe and not meddle with anything elſe, but this it ſeems you cannot do, for you cannot ſepa-

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rate them without tearing up others clinging underneath. Thus our ſolids reſemble a quantity of fine paper piled up in a ſtationer's ſhop, if you ſet a man with gloves on or a ruſtic whoſe hands are hard by labour to take off a ſingle ſheet, he will fumble about a long while and at laſt take up two or three together: ſo if we attempt to take off a ſuperficies we cannot do our work neatly, but our clumſy fiſted imagination pulls up another adhering to it beneath.

5. Having ſo little ſucceſs with ſuperficies conſidered by themſelves, let us try what can be done with them in their ſtate of junction with the main body. When one thing lies upon another, how porous ſoever we may imagine them, there muſt be ſome ſolid parts of each which touch, and thoſe who contend that all body has magnitude, muſt admit that theſe parts have ſuperficies by which they reſt upon others of equal ſize that ſupport them. But not to perplex ourſelves with ſuch minute parts, ſince we are enquiring only into our conceptions rather than the reality of things, let us conſider larger objects that we can eaſily comprehend: it is certain we may and do conceive of compact ſubſtances as of perfect ſolids, and therefore theſe will anſwer our preſent purpoſe as well as if they were truly ſuch. Let us ſuppoſe then a ſix inch cube

cube of glaſs perfectly ſmooth ſtanding upon a well poliſhed marble table, here we may conceive a ſuperficies of ſix inches ſquare that touches a like ſuperficies of the table: but what does it touch? is it not real body? and muſt not that body be void of thickneſs? for none ever imagined that bodies could penetrate at all into one another. If you ſay this body muſt have an under ſide, that cannot be, for the under ſide will be a diſtinct thing from the body, one being touched by the glaſs and the other not, but the ſame thing cannot be touched and not touched at the ſame time. But this ſame individual body, individual I mean in depth, which touches the glaſs, muſt likewiſe touch ſome part of the table below, or elſe it would fall lower until it did: if you ſay again it touches only by the under ſide, then you make it a compound conſiſting of two parts, the uppermoſt of which touches the glaſs and nothing elſe, and ſo has nothing to ſuſtain its weight with the weight of the cube above; and the undermoſt touches the reſt of the table but nothing elſe, and ſo has nothing that it can ſupport nor any weight reſting upon it. Wherefore there muſt be a number of ſuperficies, each whereof touches both the next above and the next below, and run on in continuity to make the thickneſs of the table.

Now

Now conſider the ſurface covered by the cube as joining to the reſt of the table's ſurface, that part which it touches on the right hand for inſtance you muſt acknowledge to be a body, and as it cannot be diffuſed or penetrate thereinto, what it touches muſt be a line without breadth or thickneſs. Conſider again what this line touches of the further and hither parts of the table and we ſhall find them to be points, that is, bodies deſtitute of any dimenſion.

6. Some have queſtioned whether magnitude be really inherent in bodies or only an idea wherewith they affect us: I don't know how this matter can be determined with abſolute certainty, for we can know nothing of bodies unleſs by our ideas, but if it be real we muſt ſuppoſe it to correſpond with our idea, and everything to be predicated of it which may be predicated of that. Now though we muſt acknowledge that our idea of magnitude conſiſts of parts yet it is not neceſſary thoſe parts ſhould have a magnitude too; things may affect us with an idea by their united force when they could not do it ſingly. We know viſible objects are compounded of inviſible particles: and audible ſounds made up of little motions in the air which cannot be heard: the watry vapours diſperſed up and down in fair weather

affect

affect none of our ſenſes, but when condenſed into rain we can both ſee and feel it; a ſingle drop falls ſilently down, but when multitudes of them pour in ſhowers we hear them patter againſt the ground: why then may not bulk ~~and~~ and thickneſs be compoſed of what has neither? One is no number yet all numbers are made up of units, and two of them are enow to compoſe the loweſt: we have obſerved before that all magnitude may be expreſſed by numbers, as of yards, inches or fractions of an inch, and indeed is no more than a number of parts undiſtinguiſhed from each other in the thought. Therefore in things whereof we can perceive the parts ſingly we reckon by number, as a hundred men, a thouſand ſheep, twenty guineas; where we cannot, we eſtimate by meaſure or magnitude, as a pint of water, a ſquare yard of clay, an ounce of gold. Now we ſhall ſee this doctrine confirmed if we attend to the diſcourſes of ſuch as would prove the diviſibility of matter, for you will find them always contented with number two to make a dimenſion: there is no line, ſay they, ſo ſhort but muſt have two ends, no ſuperficies ſo narrow as to be without two ſides, and no ſolid ſo thin as not to have two ſurfaces; allow them two extremities and their conception does not boggle at any dimenſion

without wanting a middle to compleat the idea. Then again if we take our judgement from the ſcenes in our imagination, no Body can be infinitely diviſible, for infinites are the moſt inconceivable things we can turn our thought upon, and I defy any man to form a clear conception of an infinite number of parts in a mountain or a province, a planet or a Sun.

7. But before I am entitled to give a challenge I muſt take care to acquit myſelf manfully in anſwering that I accepted a little while ago; let us therefore examine whether it be really true that we have no conception of a body without parts. When we look upon the wainſcot of a room where the pannels are painted of a different colour. from the ſtiles and mouldings, we do not take the objects we behold for fancies or deluſions but for ſomething real and material, yet we conceive of the paint on the pannels as ſquare ſubſtances utterly devoid of thickneſs: it argues nothing to tell me the paint muſt have ſome depth and that if I ſcrape off a little with a penknife I ſhall perceive a colour ſtill lying behind, for our buſineſs is now only with our manner of conception which takes in nothing of the latent colour, nor do we [illegible] penetrating at all into the [illegible] touching lightly upon

on the ſurface. So if I ſee a carpenter draw a line with his lead pencil, perhaps I might eaſily diſcern a ſpace between the ſides if I looked for them, but this I do not, ſo the breadth does not enter into my idea of the line, which I conceive as a black ſubſtance (for I do not ſuppoſe it an apparition) extended only in length. Should I, upon hitting my pen againſt ſomething, chance to daſh out a few ſparkles of ink upon my paper, I ſhould ſee them plainly and apprehend them to be ſubſtances, yet might neither diſcern nor conceive any dimenſions they had. What ſhall we ſay of the ſmaller ſtars? I do not deny them to be immenſe bodies much larger than this whole earth we inhabit, yet every common man who looks at them in the night conceives them as no more than points, and aſtronomers tell us that if they were brought a hundred times nearer than they are, we ſhould not find them having any perceivable magnitude. So then whether there be ſuch things as points, lines and ſurfaces in nature or no, certain it is from experience that we have ſenſations and ideas of them.

8. Men of thought, like children pulling their playthings to pieces to ſee what is in the inſide, endeavour to ſeparate the objects ſtriking their ſenſes from the reſt of the body

dy whereto they belong, in order to turn them round and as it were handle them on all ſides in their contemplation; but in ſo doing, as has been obſerved before, there conſtantly grows ſomething more to what they ſo take off, reflection adding other ideas out of her own fund to thoſe ſenſation had exhibited: ſo that a point, a line, a ſuperficies conſidered apart, is not what it was when lying in the body. Thus they deceive themſelves thinking to find dimenſions in objects which have none: they do indeed find them in their idea, but then they find only what their own imagination had laid there juſt before.

9. The like may be ſaid of figure as has been obſerved concerning magnitude, for the one cannot well ſubſiſt without the other, whatever has magnitude muſt have ſome figure, and contrarywiſe: but poſſibly neither may reſide in bodies any otherwiſe than as qualities of affecting our ſenſes in ſuch a particular manner; therefore it is hard to ſay what figure belongs to things ſo immenſely great or extremely ſmall as to baffle all our methods of admeaſurement. We are apt indeed to conceive of points and of infinite ſpace as being round, and the Stoics confidently aſſigned that figure to the univerſe, but then where ſhall we place the center? why always in that ſpot where we happen to

ſtand ourſelves, becauſe we can conceive no otherwiſe of immenſity than by ſpreading our thoughts to boundleſs diſtances on all ſides of us: but then this center muſt move as we move, and according to the time when we make our reflection, whether in June or December, will ſtand a hundred and ſixty millions of miles apart from itſelf. We imagine points round becauſe we can conceive them equidiſtant from every part of a circle drawn about them, which we could not conceive of any other figure lying in the middle; but then the circle cannot be drawn within the point nor unleſs at ſome diſtance from it. So that our ſpheres of both ſorts are incompleat, the one being a center without a circumference and the other a circumference without any or with a movable center. In ſhort the notion of rotundity in theſe things ſeems grounded on the following ſyllogiſm. They muſt have ſome figure, but they cannot have any other beſides roundneſs, therefore they muſt have that. The minor we may prove well enough, becauſe in all other figures there muſt be angles or protuberancies which we may conceive broken off and what remains only will be the point; and we may conceive the ſides between thoſe angles and protuberancies ſwelled out, therefore the figure before ſuch ſwelling was not immenſe. But the

the major we aſſume without any foundation, our faculties not being ſufficiently acute to inform us with certainty whether there may not be bodies or ſpaces without any figure at all: thus much we may reſt ſatisfied with, that we can neither conceive a ſphere conſiſting of no parts, nor yet how finite parts can make up an infinite compound.

10. Upon the whole matter it ſeems too haſty a concluſion to pronounce that all body muſt have magnitude and diviſibility becauſe we cannot conceive of it otherwiſe: for we have produced inſtances of our ſeeing and conceiving bodies without ſight or conception of their having all or any of the three dimenſions required to make a ſolid; and if we cannot comprehend them apart in our imagination without dimenſions, why ſhould we preſume that imagination is a competent judge in the caſe? For our ideas being all received originally from ſenſation, reaſon has no other materials to work upon beſides thoſe furniſhed by the ſenſes; and the objects ſtriking upon them, even when aſſiſted by the beſt contrivances of art, are all undeniably compounds, ſo that we have no experience of anything elſe whereon to ground our judgements. But had we ſenſes piercing enough to diſcern that firſt matter whereof all bodies are compoſed, how know we what

other appearances that might exhibit different from any we have ever yet beheld? which might enable us to underſtand what now remains inconceivable. Therefore the argument drawn from our manner of conception, which we muſt needs own imperfect, is ſcarce ſufficient to overthrow that taken from the exiſtence of body, which you can never come at until you get to ſomething uncompounded: for a compound is not a Being, but a number of Beings, nor has any other exiſtence than what belongs to the component parts. So then we muſt neceſſarily either admit individuals or deny all exiſtence to body and ſuppoſe it only an idea or phantaſm of the brain. And that there are ſuch atoms ſeems to ſtand confirmed by the current doctrine of coheſion wherein the ſtrength of beams, bars, long ſtones and other ſolid bodies conſiſts, enabling them to ſupport heavy weights: for their parts are not held together by any cement or ſtrings but, as Sir Iſaac Newton and from him our modern naturaliſts ſuppoſe, by the external preſſure of ether. Now let us imagine an iron bar ſliced out into a multitude of plates as thin as paper and perfectly ſmooth: I do not ſay this can be done by art, but if matter be infinitely diviſible the bar is certainly capable of being ſo divided and its length is actually made

made up of ſuch plates ſtanding upon their edges ſide by ſide of one another, and it ſeems incredible they ſhould be made to cohere ſo firmly as experience ſhows they do by a lateral preſſure againſt the two outermoſt. You might eaſily hold up a quire of paper by preſſing it with your flat hand againſt the wainſcot, the ſame I ſuppoſe you might do with a ream or perhaps two or three, only you muſt ſhove with both hands and all your might; but if you had glaſs plates as finely poliſhed as art could make them to try with inſtead of paper, and enow of them to reach almoſt croſs the room, you would never be able to prevent the middle ones from ſlipping through between the reſt, eſpecially if you laid a parcel of boxes and trunks over them. Poſſibly you might contrive by means of ſtrong ſcrews to keep even this glaſs beam compact, becauſe glaſs and all other the moſt finiſhed productions of human induſtry ſtill have ſome little roughneſs, which hinders their ſliding down when very forcibly ſqueezed: but the plates compoſing our iron bar, were matter infinitely diviſible, muſt be mathematically ſmooth, ſo that the greateſt preſſure could never make them cohere. Therefore we muſt conclude that the thinneſt plates, whereinto a beam or bar is capable of being divided, are not mathematical planes

nor perfectly ſmooth ſurfaces, but have a roughneſs not ſeparable from the reſt of the plate, whereby when forcibly compreſſed they take hold of the like roughneſs in the next adjoining plates.

11. Nevertheleſs as one muſt not expect to bring every one to the ſame mind upon ſo abſtruſe a queſtion, I will deſire thoſe who ſtill hold the infinite diviſibility of matter to conſider that infinity is an inexhauſtible fund, and how capable ſoever matter may be of ſuch diviſion it can never be effected compleatly. Let water, air, fire, or whatever cauſes you pleaſe, rend aſunder the parts of matter ever ſo long, they can never reduce them to nothing, but their minuteſt diviſions will ſtill be body having figure and magnitude: ſo that we muſt neceſſarily conclude there are particles in nature which, notwithſtanding all the diviſions they have undergone or may ſuffer hereafter, never were and never will be leſs than they are. Therefore the moſt obſtinate unbelievers of individuality may without ſcruple admit the doctrine of atoms actually, if not potentially, indiviſible, and that there is a Minimum below which, though bodies may be capable of being reduced, there is no power in nature that can reduce them: theſe then we may be permit-

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ted to take for our firſt matter whereout all the bodies of the univerſe are compounded.

12. I ſaid at firſt that infinite diviſibility of matter was the doctrine now in vogue amongſt the learned, but upon ſecond thoughts I believe I have miſrepreſented them, and the miſtake aroſe from want of diſtinguiſhing between infinite and indefinite diviſibility. For I have obſerved that men of ſober judgement forbear to decide anything concerning the former, which they own to be an unimaginable ſubject too perplexing for the human faculties to determine either way: but concerning the latter they unanimouſly agree that we cannot ſet any bounds to the diviſion, nor aſſign the preciſe number of parts into which any given parcel of matter may be crumbled. If my notion of exiſtence has perſuaded me that nature muſt make a ſtop ſomewhere in her dividings, I ſhall not heſitate a moment to ſubſcribe to the article of indefinite diviſibility: for our thought knows no bound in the operation, nor does reaſon ever find an obſtacle againſt contracting or extending her ſcale without end in meaſuring the objects ſhe would contemplate. This is enough to ſerve the purpoſes of mathematicians and naturaliſts, and leſs than this being not enough, I ſhall endeavour to confirm it by ſome obſervations

which, though a digreſſion from my courſe for the preſent, yet will not be uſeleſs by and by when I may have occaſion to divide further than everybody will let me. For there are people whom you can pleaſe neither full nor faſting; they will battle tooth and nail for diviſibility at one time, and at another will not allow you to uſe the principles themſelves have laid down, but if you go to ſpin finer than they have been accuſtomed to, cry out againſt it as an inconceivable abſurdity. Now as in the progreſs of theſe enquiries I may be driven to a neceſſity of ſuppoſing very ſmall bodies to contain a multitude of various and diſſimilar parts, that I may not ſhock anybody with an idea he might think quite out of the way if preſented to him at once, I ſhall endeavour to prepare for its reception by producing inſtances wherein little parcels of matter are actually divided beyond what is commonly apprehended poſſible.

13. Thoſe who have gone upon the ſame undertaking ſeldom fail to put us in mind of perfumes, which they ſay will ſend forth an odour for many years without loſing ſenſibly of their weight; and of leaf gold, a ſingle grain of which we are told will cover a wire of 1625 feet long ſo entirely as to leave no ſpaces open between.

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But as the little corpuſcles of light are probably the ſmalleſt bodies affecting our ſenſes I ſhall try to make ſome computation, tho' far within bounds, how many of them may be thrown off from a certain quantity of inflammable matter. I have been informed that a wax candle of four to the pound may be ſeen in a clear night at two miles diſtance: this then held up two miles high in the air would diffuſe its light throughout a circumference of four miles in diameter. Let us now conſider how near the rays of light muſt lie to one another in this circumference ſo as to be diſcernible in every part of it, and we cannot well ſuppoſe them further apart than one eighth of an inch, for elſe an eye moving gently to the right or the left would find intervals of darkneſs when it came between the rays; therefore there muſt be ſo many rays as there are ſquare eighths of an inch in ſuch a periphery, and we ſhall find them upon computation amounting to 354816000. But this is not all, for each ray probably conſiſts of ſucceſſive corpuſcles continually following behind one another, and the buſineſs is to find out how many of theſe ſucceſſions may proceed from ſome ſubſtance whoſe quantity is aſſigned. A candle of the ſize above mentioned will burn about ſix hours, therefore a grain of wax, reckoning

ing eighty pounds Troy to ſeventy three Averdupois, feeds the flame ſixteen ſeconds. Now in order to diſcover how many ſucceſſions of light muſt be ſent out in that time, let us have recourſe to the pretty childiſh amuſement of making gold lace ſpoken of at the beginning of our chapter on Reflection. Let a live coal be fixed upon a wheel and upon turning the wheel a little briſkly you will ſee the coal draw a trail after it; as you encreaſe the velocity of the wheel the trail will lengthen more and more. Let the motion be accelerated until the trail juſt cloſes into an entire circle and then obſerve in what time the wheel performs its circumvolutions, for this will determine the length of a ſenſation: becauſe it is plain the impreſſion received by the eye from the coal at one point laſts until it comes round to the ſame point again, or elſe the circle would not appear compleat. We ſuppoſe the wheel to turn in this caſe (for I have never tried the experiment) ten times in a ſecond: it will follow that an eye ſeeing the candle without diſcontinuance muſt have a freſh ſucceſſion of light ſtrike upon it in every tenth part of a ſecond. But we have not done yet, for the circle made by the coal will not appear ſo bright as the coal itſelf when ſtanding ſtill, from whence we may infer that ſeveral ſucceſſions, following

lowing one another before the effects of the former is worn off, are requiſite to give us a perfect view of the objects we behold: we muſt think of ſome other contrivance to diſcover how many of theſe ſucceſſions fall within the compaſs of a ſenſation. And for this purpoſe let a room be darkened excepting a long ſlit a quarter of an inch wide cut perpendicularly in the window ſhutter: let a large circular paſteboard be placed ſo as to turn very ſmoothly upon an axis laid horizontally upon a level with the bottom of the ſlit: cut a ſlit likewiſe of the ſame width in the paſteboard from the circumference to the center; cauſe it to be whirled round with an even motion juſt ten times in a ſecond, if that be found the length of a ſenſation, and place your eye directly over againſt the window but on the oppoſite ſide of the paſteboard, by which means you will have no light but what comes through both the ſlits. In this ſituation I apprehend you will ſee light continually near the center of the paſteboard but none at a diſtance, becauſe there the aperture will be too ſmall to admit it. If you can obſerve exactly the limits between light and darkneſs, you may determine how many ſucceſſions at leaſt muſt follow during a turn of the paſteboard: for the rays having no admittance unleſs during that interval wherein

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ſome part of both ſlits fall in a line with your eye, in which time the paſteboard will have moved half an inch, the proportion this bears to the whole circle deſcribed by that part where you ſee the light terminate will give the ſucceſſions falling within the compaſs of a rotation. Suppoſe for inſtance you can diſcern light ſo far as eight inches from the center, a circle drawn upon ſuch a radius will meaſure fifty inches round and contains a hundred of thoſe ſpaces the rays have to paſs thro': ſince then you ſtill perceive them, you may reſt aſſured they keep flowing in every hundredth part of a turn of the paſteboard, and if ten of theſe were performed in a ſecond there muſt be a thouſand ſucceſſions following in that time. Therefore to find the number of corpuſcles produced by our grain of wax, during its ſixteen ſeconds burning, we muſt multiply the prodigious number before ſet down by 16000, which will give a produce of 567705600000o.

14. I have proceeded upon a ſuppoſition that the rays of light are not continual ſtreams, but little balls or corpuſcles following one another at certain diſtances: and if there runs out no more of them than a thouſand in a ſecond, the diſtance between every ball and the next behind will be a hundred

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ſixty ſix miles and two thirds upon a calculation from the known velocity of light. Wherefore if you will imagine a ray to be an entire thread or ſtring of balls touching one another, you muſt multiply the product we have already by as many balls as you can ſuppoſe lying within a length of a hundred ſixty ſix miles and two thirds. But this would be carrying the matter too far, for we learn upon the authority of Sir Iſaac Newton that light is emitted by vibrations in the parts of luminous bodies, which vibrations can act only at intervals in that part of their ſwing when they are moving outwards and not when they are returning, wherefore the matter they throw off cannot flow in a continual uninterrupted ſtream. Nevertheleſs we may find ſeveral reaſons making it probable that we ought to encreaſe the ſum of corpuſcules already computed: for as there are creatures much quicker ſighted than man, if you could teach a cat to make and communicate the obſervation, tis not unlikely that puſs might give the ſignal for ſeeing light much higher up the paſteboard than you could perceive it, which would convince you there are more ſucceſſions than you had found yourſelf. Nor could you ſtill be ſure of having them all, for a ſingle ball may be too feeble to cauſe viſion at all and it may require

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the united force of many to excite a ſenſation in the optics of any animal whatever: ſo that you cannot know for certain that the light does not find a paſſage at a height where neither you nor the cat can diſtinguiſh it. We may conſider further that the rays at two miles diſtance from the candle may lie cloſer together than one eighth of an inch; that light itſelf is a compound body conſiſting of ſeven different coloured parts, as appears by experiments with the priſm; neither does the wax turn entirely into light, for we know a great part of it goes off in ſmoke and vapour; nor yet perhaps is the ſubſtance of the wax at all converted into light, which ſome hold to be a body of its own kind diſperſed among the pores of luminous bodies and not entring into their compoſition, in which caſe it muſt bear a very inconſiderable proportion to the grain we ſuppoſe the wax to have weighed. From all which conſiderations it may be concluded we have been very moderate in our computation, which is more likely to fall greatly ſhort of the truth than to exceed it.

15. Now how aſtoniſhing ſoever it may appear to find a drop of wax ſhattered into ſuch a multitude of pieces, our aſtoniſhment muſt encreaſe when we reflect on the great tenuity of the wax and how far it is from being a ſolid ſubſtan[illegible] Newton aſ-

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ſures us that gold, the moſt ſubſtantial body we know of, contains more of pore than ſolid ſubſtance: therefore wax, which will ſwim in water, does not really occupy one fortieth part of the ſpace it ſeems to fill. Some have gone ſo far as to ſuppoſe that all the matter of this viſible univerſe compreſſed into a perfect ſolid would form a cube of but a few inches on every ſide. I ſhall not attempt to make calculations of this ſort having no ſure foundation to build upon: but I think it may be made appear by experiments of the firmeſt and compacteſt bodies that the ſolid matter contained in them bears a very trifling proportion to their apparent magnitude. I believe few will deny me that whenever a heavy body lies upon another they touch, for nothing elſe beſides their ſolidity and contact prevents the uppermoſt from falling ſtill lower. Some perhaps may controvert this point, becauſe it being held by the beſt authorities that every particle of matter has a certain ſphere of attraction, immediately beyond which there begins a ſphere of repulſion, whoſe force decreaſes in more than duplicate proportion the farther you recede from its internal limits, therefore a body falling towards another, when come within the other's repulſion, will be ſtopped thereby before contact and kept ſuſpended in the air,

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the force of repulſion exactly ballancing that of gravitation. But this however plauſible in theory will appear not to be true in fact, becauſe bodies laid on greaſy or dirty places upon being taken off again withdraw ſomething from thence ſticking to their bottom, which ſhows they were in actual contact before, for the adhering particles can never be ſuppoſed to follow what they had conſtantly kept aloof by the vigour of their repulſion. Beſides conſidering how very ſmall the ſphere of ſtrong repulſion is, if a book laid gently upon the table did hang ſuſpended, yet by a ſmart ſtroke upon the upper ſide you might drive it down within the inner ſphere of attraction. From hence we may conclude that bodies lying upon each other have ſome of their parts in actual contact, and conſequently, ſince all body is endued with an attraction of coheſion, they muſt adhere in ſuch parts, and the largeneſs of their contact may be determined by the ſtrength of their coherence.

Now ſuppoſe two plates of gold, the heavieſt of ſubſtances, as perfectly poliſhed as art and induſtry can make them, let one be laid flat upon a table and the other ſuſpended horizontally by ſtrings upon one arm of a ballance, hanging a weight to the other arm that ſhall exactly counterpoize it, then let down your

your ballance gently till the plate reſts upon that on the table, touching it apparently on its whole ſuperficies. If you encreaſe your weight and the ballance be very good, I apprehend a very ſmall one would ſuffice to draw up the upper plate from the under and conſequently to overcome the coheſion between them: a pennyweight might do it tho' the plates were a foot ſquare, or perhaps a hair could you get a ballance perfectly ſmooth without any friction. Now were a needle worked into the two plates ſo ſtrongly as that they could not be parted aſunder without breaking the needle, it might require many pounds weight to ſeparate them when ſo faſtened. But the parts of compound bodies being held together, not by any glue or cement between, but ſolely by their mutual coheſion correſponding with their contact, the ſtrength of the needle to reſiſt breaking muſt be according to the contact its two pieces had together before their diſruption: which ſtrength being found ſo vaſtly greater than that exerted by the plates to keep themſelves united, it is plain the whole ſuperficies of their touching parts bears no diſcoverable proportion to that of the tranſverſe ſection in a ſlender needle. From hence we may gather that the ſuperficies of the plates reſemble a network of wire, whoſe meſhes are immenſely larger than the

thickneſs of the threads, and whoſe threads do not correſpond with thoſe of the other plate but only croſs them in ſome few points. And ſince if inſtead of the plates you had a regular cube of gold, and were to try with one of the ſides, which make the thickneſs of the cube, inſtead of the bottom, the experiment would ſucceed the ſame, it follows that the compacteſt bodies are meer network in all their dimenſions, containing incomparably more of empty pore than ſolid ſubſtance. But it is happy for us that they are ſo, for elſe we ſhould have no uſe of our goods and utenſils by reaſon of their perpetually ſticking together beyond our power to detach them; nor could you venture to lay your flat hand upon a table for fear of being never able to draw it off again.

16. If it ſhould be thought hard of digeſtion to imagine that iron and ſteel, which force their way ſo readily thro' other things, ſhould be themſelves ſuch hollow ſhells or wire cages as we have repreſented, let us remember that all ſtrength is relative, and there is no abſurdity in imagining that one hollow ſhell may penetrate thro' another a great deal weaker: nor ſhould I deſpair, if any virtuoſo that has nothing elſe to do would undertake the trouble, to ſee a knife made of the tinder of coarſe cloth that would cut tinder of muſ-

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lin as cleverly as we do cheeſe with a knife of ſteel: but then the experiment muſt be tried in vacuo for fear any little motion of the air ſhould bend our inſtrument and make us haggle or cut awry. On the other hand I dont doubt that if we could toſs a little ball of perfectly ſolid ſubſtance ever ſo gently againſt iron, marble, or other the compacteſt body upon earth, we ſhould ſee it make its way thro' them as eaſily as a leaden bullet would if laid upon the top of a whipped ſyllabub. Having thus vented my thoughts upon the diviſibility and rarity of matter which, if good for nothing elſe, may ſerve to entertain the curious, I ſhall reſume my journey and proceed from the conſideration of body to that of mind.

CHAP. IV.

Existence of Mind.

HOW little ſucceſs ſoever I may have had in proving the diviſibility of matter indefinite but not abſolutely infinite, it will not affect the excluſive title of individuals to exiſtence: for be the ſmalleſt particle

infinitely diviſible, it is ſtill exiſtent only in reſpect of the infinity of exiſtent parts it contains. And upon this hypotheſis we muſt admit a gradation of infinites, ſome greater and others leſs; becauſe if half an orange contains an infinitude of parts, the other half muſt contain another, and conſequently the whole orange will carry an infinitude double to each of the halves. Now that infinity of parts whereof the whole material univerſe conſiſts, although, it ſeems, capable of being enlarged by the acceſſion of more matter, will not admit of encreaſe by compoſition: for there will not be one more Being nor a larger infinitude in nature upon thoſe parts running into cluſters than there would have been had they continued for ever ſeparate. So that compounds have no place among the rank of Beings, nor does their formation add anything to the number of them.

2. Therefore in order to determine between the diviſibility and unity of Mind, let us examine whether it has a diſtinct exiſtence of its own, and whether upon the production of one there muſt not be a new Being, not barely a new ſort of Being, in nature added to thoſe exiſtent before, their infinitude being encreaſed by the acceſſion of that one. And for this queſtion I need only refer to the

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ſence and underſtanding of every man to anſwer, whether he does not perceive himſelf to have a real exiſtence diſtinct from all other Beings beſide. I do not mean in kind, for there are innumerable other beings of the ſame ſpecies with himſelf, but in numerical identity, and whether there muſt not be one more Being in nature for his exiſtence than there would be without him: but if he conſiſted of parts, there muſt have been the ſame number of Beings exiſtent when he was not and before the combination of thoſe parts in their vital union, which are become thereby a different kind of Being, that is, the ſame ſubſtance in another mode of exiſtence. Some have doubted the reality of body, of ſpace, of diſtance, of magnitude, of all ſenſation, imagining theſe to be no more than perceptions riſing unaccountably in the mind: but I believe no man ever doubted of his exiſtence at the inſtant time when he reflected on it. If there be a man of ſo uncommon a turn as to make this doubt, and he muſt have another doubt beſide, to wit, whether he doubts or no, for non-entity can no more doubt than be aſſured, he may e'en turn his back againſt me for I pretend to work no conviction upon him. For the reſt of us we ſhall all readily allow that we have an idea of exiſtence, but whence ſhould we firſt get it

unleſs from ourſelves? for if we are not, we can perceive nothing and know nothing, and conſequently can have no aſſurance of the reality of other things: ſo that our perſuaſion of all exiſtence beſides muſt begin and have its foundation in that of our own.

3. But our ideas being taken originally from ſenſation and we having accuſtomed ourſelves to regard whatever appears conſtantly together as parts of one whole, we contract a groſsneſs of conception which makes us apprehend ourſelves as comprizing the whole human compoſition. For our fleſh and members accompanying us wherever we go and the operation of external objects ending at the ſurface of our bodies, we conceive ſenſation diffuſed throughout them and our very ſelves extending to the extremities of our organs where we receive the impulſe: for becauſe we ſee with our eyes and touch with the ends of our fingers, we apprehend ourſelves actually preſent in thoſe parts where we take the impreſſion of objects. But not to inſiſt upon the diſcoveries of anatomy by which it appears that their impulſe muſt be conveyed along the nerves before it affects us with any perception, everybody knows that men may be deprived of their limbs or their organs by diſeaſes or accidents and yet retain their exiſtence. Let a man loſe a leg or an arm,

arm, an eye or an ear, he ſtill continues the ſame man and holds his rank upon the liſt of Beings as much as he did before. Whatever can be ſeparated from him he may look upon as a poſſeſſion, an inſtrument or organ of conveyance, and that alone which remains after all imaginable ſeparation is properly himſelf. Beſides, our organs have their ſeparate offices not interchangeable with one another: the eye which ſees cannot hear, and the ear which hears can never ſee; but they being numerically diſtinct, if they were the perceptive ſubſtance, it would follow that what ſees is a different thing or ſubſtance from that which hears. Therefore they can only be channels of conveyance to ſome one individual thing: for no man can doubt but that it is the ſame Himſelf which ſees and hears and receives all other perceptions; and we cannot conceive this ſelf diviſible, becauſe what might be taken away upon diviſion would not be him, for he cannot be parted from himſelf. Compound bodies conſiſt of parts having the ſame nature and primary properties with themſelves, nor is it conceivable that any aſſortment of unſolid or immovable parts ſhould form a ſolid and movable body: then if compoſition prevailed in Mind too every Self muſt contain a number of little Selves, every Mind many little

Minds, and every Sentient principle a multitude of Sentient principles. But this is a ſuppoſal that will not bear the mentioning, for who would not be ſhocked to hear talk of a half or a quarter of a man's ſelf? Beſides if things ſentient were diviſible the parts might be diſperſed throughout the four quarters of the world, and a man might have perceptions at the ſame time in Europe, Aſia, Africa and America.

4. To avoid this abſurdity there have been thoſe who have aſſerted that Self, Mind, or a perceptive Being, may be produced by a combination of unperceptive principles: not to repeat what I had urged before, that then there may be a creation effected by compounding, let us remark that upon ſuch combination the parts conſidered ſingly cannot have, nor are they pretended to have, any other properties than they poſſeſſed before, neither can they club to take their ſeveral ſhare of a perception; for perception has not parts without parts and therefore cannot be received piecemeal, but the perceptivity reſides in the whole compound jointly. Now it ſeems very hard to underſtand how a collection of diſtinct ſubſtances, for ſuch every compound muſt be, can perceive what is not perceived by each of them. I can conceive a whole camp to hear the evening gun becauſe every

every man in the camp hears it, but I cannot comprehend how they can all hear a ſound that eſcapes every ſingle perſon. And the caſe would be the ſame if they were tied or glued together or if the brains of all could be crowded into one head: nor can I for my life diſtinguiſh between their all hearing it and every one of them hearing it: ſo neither can I diſcern with the utmoſt ſtretch of the microſcope a perception in any compound or collection of ſubſtances, however compacted or united together, which muſt not be compleat in each of them. The ancient Hylozoiſts, as we learn from Cudworth, aſcribed an imperfect perception to their atoms, which was not perception till it was rendered compleat by the junction of ſeveral of them together, and he ſeems to have had a notion of this imperfect perceptivity himſelf in his plaſtic nature of elements and vegetables, though he never attempted to compleat it by junction. But I can no more comprehend how an imperfect whiſper heard by twenty perſons ſhall become an audible voice than how they can all hear a ſound heard by none of them ſingly: I would as ſoon undertake to explain how a letter might be ſent a hundred miles in an hour by employing twenty men who could walk five miles apiece in the time.

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5. We commonly apprehend things to remain the ſame while they continue to ſerve the ſame purpoſes and exhibit the ſame appearances, thus you call a canal the ſame notwithſtanding a perpetual influx and efflux of the waters and after you have new turfed the banks, but tho' it be the ſame canal no man will eſteem it the ſame ſubſtance, for it ſeems neceſſary to ſubſtantial identity that the component parts ſhould remain unchanged. So if the mind be a compound, then upon ſome of the parts being ſlipped away and others ſubſtituted in their room, tho' it might ſtill remain a mind it muſt be a different one from what it was before: and as Lucretius tells us the mind grows and decays with the body, every man would have a different ſelf in his childhood, his maturity and his old age.

6. But it may be ſaid that mind is not ſo much a collection of particular atoms as a figure or harmony reſulting from the order wherein they lie, and therefore may continue the ſame altho ſome or all of the atoms be ſhifted: for if you place twelve ſhillings in a circle, change your ſhillings as often as you pleaſe for others you do not alter the figure which ſtill remains a circle. But what then becomes of our own exiſtence? for form has none but is only a modification or particular manner

manner of exiſtence in body; and harmony has none being nothing more than the concordance or mutual congruity of ſounds whereby they affect the ear in a particular manner. Beſides, where ſhall we place perſonality? for there is no difference between ſimilitude and identity in forms: an egg at York is of the very ſame ſhape with an egg at London, and a concert of the ſame muſic play'd upon the like inſtruments gives the ſame harmony in both places; therefore two minds compoſed of atoms having an exactly ſimilar diſpoſition muſt be the ſame perſon, and thus there may be a thouſand ſame perſons in ſo many different parts of the globe as there may be a thouſand ſame forms and harmonies. The ſame circle may be drawn at once in Tartary and in Chili, or the ſame tune play'd at Canton in China while it is playing at London. Therefore if one particular form or harmony be you and another particular form or harmony be me, there might be as many you's and me's in the world as there are cluſters of atoms capable of running together in the ſame manner as ours have done. For it may be remembred that we are not now ſuppoſing mind to conſiſt of a number of particles combined together in ſuch or ſuch order, but to be the order itſelf conſidered apart from the particles and equally capable of reſiding

ding in any other that ſhould be brought within its compaſs. Or if you make any other identity of form than that of equality and ſimilitude, then upon having flatted a globe of wax by which you abſolutely deſtroy the roundneſs it had, it will be impoſſible to reſtore it to the ſame figure again: becauſe if the roundneſs of one piece of wax be a different thing from the roundneſs of another, by the ſame reaſon the roundneſs it receives upon a ſecond moulding will be a different thing from that it had before being flatted, as being a figure newly produced, not one drawn back again from ſome place where it had lain dormant in the interim.

Nor will it be eaſier to preſerve the identity of Mind in one collection of particles than we found it to diſtinguiſh the diverſity of minds in ſeveral: for if each particular mind were nothing but a certain order of the particles compoſing it, we muſt loſe our identity upon every turn of thought; for we may perceive a change in our mind upon paſſing out of pleaſure into pain, but there can be no change among forms without a locomotion of the component parts, which muſt deſtroy the order they ſtood in before. If you change the place of any two in your circle of ſhillings, you ſpoil your circle while they are paſſing into each others ſtations: therefore if

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their perſonality depended upon their circularity, the ſhillings during that interval muſt make none, or at leaſt a different perſon; or ſhould you fancy the varieties of thought made by a variety of motions of the whole compound, we could never think of two things together, the ſame body being incapable of moving with two different velocities or in two different directions at once. Let us conſider likewiſe the variations of character, diſpoſition and expertneſs, frequently happening in the ſame ſubject: the ſucking child who knows not his right hand from his left, may when grown up become maſter of ſeveral ſciences; the croſs-grained, peeviſh, unlucky boy may ſometimes by good management be made to turn out a ſober, diſcreet and well behaved man. But if they were nothing more than compoſitions, theſe permanent changes, which render them a different ſort of creatures, could not happen without a change of ſtructure in their component parts; which muſt produce a diverſity of compoſitions and conſequently a diverſity of perſons: contrary to the apprehenſions of all mankind who eſteem themſelves the ſame perſon from the cradle to the grave, notwithſtanding any variations of character or capacity they may have gone through in the interval.

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7. There ſeems to lie the ſame objection againſt Mr. Locke's doctrine of conſciouſneſs conſtituting identity: it would be preſumption in me to contradict a man of his clear and ſteddy judgement, therefore ſhall ſuppoſe I have ſome how or other miſunderſtood him; but to the beſt of my apprehenſion he ſeems to have placed our exiſtence in a quality rather than a ſubſtance, for by the term Conſciouſneſs I cannot underſtand a Being, but only a power or property of ſome Being; nor do I apprehend a man loſes his exiſtence or perſonality every time he loſes his conſciouſneſs by falling faſt aſleep. Could Mr. Locke himſelf imagine that his perſon was annihilated every night when he went to ſleep and re-created again when he awoke in the morning? The moſt I can allow to conſciouſneſs, unleſs I groſsly miſtake the word, is that it ſhould be in moſt caſes the evidence to us of our identity, for ſcenes that we remember convince us of our being the very perſons preſent at them. I ſaid in moſt caſes but not all, for who does not know that he was once a baby wrapped up in ſwaddling cloaths? and who does not believe that baby to be the very ſame perſon with his preſent ſelf? yet I never heard of anybody pretending to have a remembrance or conſciouſneſs of his being in that condition. Nor do I find little difficulty in

in ſettling the identity of conſciouſneſs, for in quality, as I obſerved before in form, I know no difference between identity and ſimilitude: whatever has a like quality with ſomething elſe, to my thinking has the ſame. If I have done anything I would conceal yet I am conſcious to myſelf that I have done it, and I ſuppoſe you would be the ſame upon the like occaſion and ſo would every other man; therefore we are all one and the ſame perſon. Well but you all are not conſcious of the ſame fact with me, ſo the identity of the conſciouſneſs depends upon the identity of fact: but this will not do neither, for I am conſcious of ſeveral actions I have performed and therefore ſhould be ſo many different perſons. The only way remaining in which I can underſtand an identity of conſciouſneſs, is by placing it in the conſciouſneſs of the ſame perſon, in which light the idea of perſon muſt preceed that of conſciouſneſs: ſo it is no help to tell me I may find my perſonality by my conſciouſneſs, becauſe I muſt fix my idea of perſonality before I can make uſe of the explanation.

8. Mr. Locke has ſomewhere unluckily let drop that he conceives it poſſible the faculty of thinking may be annexed to a ſyſtem of matter, and this notion has been eagerly laid hold of by my lord Bolingbroke to con-

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firm his opinion of the corporeity of all thinking ſubſtances. For my part I am not ſo confident of my own underſtanding as to pronounce it impoſſible for nature to do what I cannot conceive poſſible to be done: but this I will ſay, that I cannot conceive it poſſible perceptivity ſhould be annexed to a ſyſtem, by which muſt be underſtood a compoſition, of matter or any other ſubſtance whatever, but muſt reſide in ſomething that is numerically One and uncompounded. For ſuppoſe an object to ſtrike upon any one component part of the ſyſtem, if it raiſes a compleat perception there, then the reſt are uſeleſs: if the perception does not begin till this part has communicated the impulſe to ſome other, then is that other the perceptive ſubſtance and the firſt only an organ of conveyance: if both receive it equally, then does the faculty belong not to the ſyſtem but to the ſeveral parts. Nor can each take its reſpective ſhare of the perception, for as we obſerved before, it is inconceivable that a perception ſhould be received piecemeal or made up of what is no perception. And this matter will appear plainer if we conſider the nature of judgement and compariſon, where both terms of the one and both branches of the other muſt be apprehended together in order to determine between them. If this

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man knows the other properties of gold and tother knows what ductility is, they can never know the more for this, either jointly or ſeparately, whether gold be ductile: ſo if one be ever ſo well acquainted with St. Peter's at Rome and the other with St. Paul's at London, they can never tell which is the larger, the handſomer, or make any other compariſon by virtue of this knowledge. But you ſay one may communicate his knowledge to the other, very true, but then each has the idea of both before him in his imagination, and the judgement is the act of either ſeverally not of both jointly. Nor is the caſe different with reſpect to the parts of a percipient ſyſtem: let the idea of an elephant be impreſſed upon particle A and that of a mouſe upon particle B, they can never know either jointly or ſeparately which is the larger creature, nor can a judgement be formed until the ideas of both coincide in one and the ſame individual.

9. And what has been ſaid of perception may be applied equally to volition: for as a body could neither impell nor reſiſt another unleſs all the particles of the whole maſs, be they finite or infinite, had a quality of impelling or reſiſtance, for it is unintelligible to talk of an impulſe ariſing ſolely from the compoſition: ſo neither can any ſyſtem have

a power of beginning motion where there was none in the parts. A hundred men may certainly lift a weight that would cruſh any one of them, but a thouſand would never be able to ſtir it unleſs each man had ſome ſtrength of his own independent on the reſt. Whence we may juſtly conclude perceptivity and activity to be primary qualities, eſſential to the ſubſtances poſſeſſing them, inſeparable therefrom, belonging to individuals, and not producible by any combination whatſoever of imperceptive and inactive ingredients.

10. If Self be not a ſubſtance but a ſyſtem of ſubſtances ranged in ſome particular order, there appears no ſuch neceſſary connection between any one Self and any preciſe collection of ſubſtances or percipient form (for we now proceed upon a ſuppoſition of forms being percipient) but that they might have contained any other Self: ſo that theſe ſubſtances and this form, which now conſtitutes Myſelf, might as well have conſtituted the Self of John or Thomas or any other perſon without implying a contradiction or abſurdity; and we muſt look for ſome cauſe yet undiſcovered to aſſign each ſyſtem its perſonality. This cauſe then before I was exiſtent might have aſſigned my perſonality to any other ſimilar ſubſtances diſpoſed in the like order in ſome diſtant part of the globe: now

now why may not this cauſe do the ſame at this preſent inſtant? for how ſhould my exiſting in the ſpot where I now ſtand hinder the operations of nature elſewhere, or incapacitate her from doing what ſhe could have done a hundred years ago? therefore there might have been two Myſelves ſome thouſand of miles apart. But if ſuch a ſuppoſition would ſhock the ears and underſtanding of every man, it will neceſſarily follow that every Self muſt be a ſubſtance numerically diſtinct from all others, of whoſe identity no other ſubſtance nor ſyſtem of ſubſtances can participate. And if a ſubſtance, it muſt be One uncompounded of parts; for I am nothing elſe beſides Myſelf, nor can contain anything that is not Me, nor yet can I have parts which are neither Me nor anything elſe. As a piece of matter divided makes ſeveral pieces, and a compound form diſſolved becomes many leſſer forms, ſo a perceptive ſubſtance divided would yield many percipients, and perception always implying perſonality, each percipient muſt have a Self diſtinguiſhing it from its neighbour: ſo that upon ſuppoſition of a diviſibility in the ſubſtance of Mind, I ſhould contain as many Selves as there are parts in my compoſition.

11. Thus have I endeavoured to place this matter in as many different lights as I

could and to turn it about in all manner of ways; but it happens ſometimes in theſe abſtruſe diſquiſitions that the very pains we take for illuſtration renders the ſubject more perplexing, for being forced to ſpin our thoughts very fine they become liable to entangle in the readers hands, and the multiplicity of ideas, into which we divide them by ſuch refinements, diſtracts his attention and cauſes them to throw a cloud over one another. Therefore ſince I apprehend this a matter of importance, I wiſh every one would conſider it afreſh in his own way, and ſatisfy himſelf, in a manner moſt ſuitable to his own liking, whether he has not a real exiſtence diſtinct from every other Being whatever, and whether Self be not an indelible character which cannot be taken from him nor exchanged with any other perſon. We often talk of what we would do if we were Such a one, that is, if we were in his place, with his ſtrength of limbs, endowments of mind, fortune, or circumſtances of ſituation: but no man can even in imagination ſuppoſe himſelf to feel for another or act for another, to perceive his ſenſations or perform his actions, or that that other ſhould be his very ſelf. We have heard of metamorphoſes and tranſmigrations from one form of Being into another, I do not deſire anybody to believe the truth of

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thoſe relations, but the pleaſure we receive in hearing them ſhows they are not unfamiliar to our imagination, nor do we apprehend a contradiction in ſuppoſing the ſame perſon to take various forms. But in all thoſe changes the ſame Self continues throughout: Caliſto when a bear and Ino when a cow are the ſame perſons, though different ſorts of creatures, that they were while women, nor does Euphorbus loſe his identity by becoming Pythagoras: and though they ſhould loſe their remembrance or conſciouſneſs, ſtill we rejoice or grieve with them according as we think they have deſerved in their former ſtate. When the poet tells us that Ariſtotle's ſoul of old that was, may now be doomed to animate an aſs, or in this very houſe for aught we know, be doing painfull pennance in ſome beau; though he goes too far in calling it a painfull pennance, for the beau perhaps is well ſatisfied with his preſent condition and would think it a terrible misfortune to be reſtored to the dry notions and muſty metaphyſics of Ariſtotle, yet we ſtill apprehend the ſame percipient ſubſtance exiſting in both. We may imagine ourſelves having new members added to our bodies, four legs or twenty arms or a pair of wings ſprouting from our ſhoulders, yet ſtill we ſhould remain the ſame ſelves: or we may imagine

ourſelves loſing our limbs, deprived of our faculties, and becoming ſenceleſs as the ſtones before us, yet even in that caſe we ſhould not apprehend ourſelves the ſame ſubſtance with the ſtone we ſee: whence it appears that we are poſſeſſed of an exiſtence and identity of which we cannot even in imagination diveſt ourſelves.

12. And for individuality if we cannot find that in ourſelves we can find it no where, for all the bodies we behold are undoubtedly compounds, and we have ſeen in the laſt chapter how difficult it is to aſcertain whether there be atoms or no, and if there ſhould be we cannot come at the apprehenſion of them either by experience or reaſoning. But we cannot comprehend ourſelves compoſed of parts ſo as that ſomething might be taken away and the remainder make an imperfect ſelf, or that ſuch imperfect ſelf ſhould become perfect upon the acceſſion of ſomething elſe. A houſe may be half built and then is ſomething of a houſe but not an entire one; a fœtus may be half formed and then is an imperfect man: but in perſonality there is no medium between completion and non-entity, we cannot half be but muſt either be compleatly ourſelves or not be at all. By ſuch conſiderations as theſe I apprehend a man may convince himſelf of his being neither

ther a form nor a harmony nor a ſyſtem, nor yet a quality or conſciouſneſs annexed thereto; but a real exiſtent ſubſtance numerically diſtinct from all others, uncompounded and conſequently indiviſible.

CHAP. V.

SPIRIT.

HAVING ſettled with ourſelves that Mind has a being of its own diſtinct from that of all other things and is a pure unmingled individual ſubſtance, nevertheleſs for any thing that has yet appeared it may be a ſingle atom of matter, ſince we have ſuppoſed exiſtence and individuality to reſide in atoms: now in order to diſcover whether it be ſo or not let us examine wherein our idea of matter conſiſts. The eſſence of things ariſes from the qualities we find them have, for to aſk what a thing is implies a preſuppoſal of ſome ſubſtance and a want of information concerning what qualities it poſſeſſes or what appearances it exhibits. Mr. Locke pronounces our idea of ſubſtance very confuſed, and ſo indeed it is if we go to conſider it

ſingly, for you cannot form a clear idea of naked ſubſtance diveſted of all its qualities or manners of making itſelf known to us: but there are ſome things we apprehend well enough in the concrete though we cannot in the abſtract, as has been made appear with reſpect to ſurfaces, which we conceive eaſily while lying upon the main body, yet cannot by any effort of our imagination detach them therefrom without pulling up a lining beſides; ſo if we cannot form an idea of ſubſtance apart from all other ideas, yet when we ſee qualities affecting our ſenſes, we may have an unconfuſed idea of ſomething exerting them having a real and actual exiſtence independent of everything elſe. For forms and qualities are not Beings, but modes of exiſtence in other Beings, and the appearances they exhibit muſt come accompanied with another idea of actual exiſtence in the ſubject containing them. Therefore if I were to make our idea of ſubſtance the ſame with that of actual independent exiſtence, which we cannot conceive apart from every manner of exiſting, though we can eaſily with it, I ſhould not deſerve much blame from Mr. Locke, who doubts whether ſpace may not be ranked among the claſs of ſubſtances, becauſe it has a reality independent on any other ſubſtances lying within it.

2. But

2. But I believe nobody ever ſuſpected the ſubſtantiality of ſpace before Mr. Locke, and he goes no further than to declare his ignorance whether it be ſubſtance or accident; yet few have denied the reality of ſpace or that we may conceive a vacuum without any ſubſtance whatever to occupy it: this is one of the moſt familiar ideas to our imagination, for any common perſon entertains it every time he thinks of an empty bottle. Whence we may conclude that ſubſtance in our ordinary notion of it is that ſpecies of exiſtencies which has perception and action, or which affects our ſenſes or cauſes diſcernible alterations in other ſubſtances: wherefore ſpace is not uſually ranked among ſubſtances becauſe it does nothing, produces no effect, but is the moſt paſſive of things, permitting all elſe to remain in it, remove from it or paſs through it; we neither ſee or feel it, nor does it touch any of our ſenſes, but is rather an idea of reflection, for upon diſcerning objects in different quarters and obſerving their diſtances we gather by inference that there muſt lie a ſpace between them.

3. I ſhall not pretend to be wiſer than Mr. Locke nor to aſcertain whether ſpace be properly ſubſtance, but our comfort is that it matters not for our preſent purpoſe whether we can decide the point or no, ſince nobody ever

ever dreamt of Mind being meer empty ſpace: ſo the queſtion lies between its being a corporeal atom or diſtinct ſpecies of ſubſtance of a kind peculiar to itſelf. We get our firſt idea of ſubſtance I conceive from ourſelves, our perceptions convincing us of our exiſtence, not as is commonly ſuppoſed by logical inference, I ſee, I feel, therefore I am, for we know our own Being long before we learn to make ſuch abſtractions, nor can one imagine a child to form ſyllogiſms or draw conſequences of this kind: but the idea of Being is contained in that of perceiving, for you cannot underſtand a propoſition without apprehending the ſeveral terms compoſing it, and in the propoſition, I feel, the term I expreſſes ſomething real and ſubſtantial, or elſe it would not be different from the propoſition Nothing feels, which rather implies a denial of feeling than carries an evidence of it, nor can there be an idea of actual feeling without ſomething that feels.

4. On the other hand to compleat our idea of feeling there muſt likewiſe be ſomething felt, and this gives us our knowledge of ſubſtances without us: for when we graſp a ſtone in our hand we find it preſs againſt our fingers ſo that we cannot cloſe them into a fiſt as we might have done before, whence we apprehend it to be a ſolid ſubſtance; and

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if we caſt it behind our back where we can neither ſee nor feel it, ſtill we conceive it retaining its ſolidity. But we diſcover its ſolidity by other ways, for if we ſee the ſtone ſqueezed hard by a pair of pincers or ſtruck by another ſtone hitting againſt it, though there be no feeling concerned in the caſe yet we perceive the ſtone makes a reſiſtance againſt whatever preſſes or ſtrikes upon it: but this reſiſtance between bodies never happens until they touch, wherefore I look upon ſolidity, reſiſtance and tangibility as the ſame thing, or at leaſt to depend upon one another and to be inſeparable from our idea of body. Lucretius aſſerts roundly that nothing beſides body can touch or be touched, whether he knew this for certain is more than I can tell, but thus much we muſt allow him, that if there be anything which cannot be touched it is not body, and where reſiſtance neceſſarily enſues upon contact there muſt be body: but when aſtronomers in deſcribing an eclipſe talk of the ſhadow of the earth touching the outer limb of the moon, I ſuppoſe Lucretius would not allow this to be touching. And indeed our touch gives us the firſt evidence of external ſubſtances, which do not diſcover themſelves to our other ſenſes until we have been convinced of their reality by that; wherefore the vulgar apprehend ſavours, odours

odours, ſounds and light, to contain nothing ſubſtantial, and the learned will hardly deny that the effluvia cauſing ſmells and taſtes, the undulating particles of air exciting ſound, and the little corpuſcules of light, might be felt as well as a ſtone had we fingers fine enough to pick them up and ſqueeze them ſingly; and how much ſoever they may contend that light touches neither the coloured bodies reflecting it nor the ſubſtance of our eye but operates and is operated upon by attraction, yet ſince it is a received maxim that nothing can act at a diſtance or where it is not, they muſt admit it touches the æther or whatever elſe by its preſſure cauſes that attraction.

5. I know not whether I am ſingular in the notion, but to me reſiſtance ſeems a kind of acting power eſſential to body; impulſe I know it cannot give until received from ſomething elſe nor encreaſe it beyond the degree imparted, but when a body reſiſts another ſtriking againſt it, it does not do ſo by virtue of any force imparted therefrom but by an inherent quality of its own. Nor can it be doubted that others have entertained the ſame notion before, if I tranſlate their latin expreſſion aright wherein they ſtile the perſeverance of body either in motion or reſt a Force or Power of Inertneſs. However as activity has

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all along been underſtood of a power of beginning motion, I ſhall not comprehend the power of reſiſtance, if it be one, under that term.

6. Thus ſolidity, reſiſtance or tangibility ſeems the only poſitive ingredient in the eſſence of body, mobility being rather an accidental property than anything eſſential. But beſides this we apprehend body to be ſenceleſs and inert, which are only negative terms importing no more than a denial of perceptivity and activity; but theſe negative terms ſeem the diſtinguiſhing characteriſtic of body. The Hylozoiſts indeed by Cudworth's account of them held a mean between perceptivity and ſenceleſneſs, between motion and reſt, ſomething that was neither perception nor ſtupidity, neither action nor inertneſs, but reſembled the thoughts of a man half aſleep or muddled with porter; and that a multitude of theſe drowſy atoms clubbing forces together might form a genius penetrating, alert and ſprightly: all which whoever can underſtand muſt be a much ſhrewder man than me. But bating this whimſy it has been univerſally agreed that matter is of itſelf void of activity and perception; and though the Stoics and other corporealiſts conceived that thought and volition might reſult from a combination of matter luckily diſpoſed into an

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organized ſyſtem, yet ſince we have ſatisfied ourſelves of the diſtinct exiſtence and individuality of Mind, we may ſafely conclude that it is another ſpecies of ſubſtance, eſſentially diſtinct from body and which we call Spirit.

7. As no bounds can be ſet to the imagination of man and new fancies ariſe in proportion as old ones are exploded, it may come into ſomebody's head one time or other to improve upon the Hylozoiſts and aſcribe a compleat perception and volition to the atoms. For he may imagine it poſſible that the mutual action of bodies upon one another may ariſe from a voluntary exertion of power upon motives, that when they cohere it may be from ſome ſatisfaction felt in their contiguity, and when they reſiſt or repell, from ſome uneaſineſs brought upon them by the impulſe; from which two actions all the operations of nature proceed. So that what was ſuppoſed to be ſpoken figuratively by the ancients, that all things were produced by Love and Hatred, whereby they were underſtood to mean attraction and repulſion, may be literally true. And here the abettors of indifferency will have an advantage over me, for they may infer from bodies acting conſtantly in the ſame manner, under the ſame circumſtances, that they have not an elective

elective power, which they conceive an eſſential property of ſpirit; but I, having ſaid ſo much and being like to ſay more concerning the certainty of human action, and having remarked that the conduct of perſons who have the fulleſt freedom of will and command of themſelves is more ſteddy and accountable than that of the giddy and ſenſual, am deprived the benefit of this argument. Therefore I ſhall not undertake to prove demonſtratively that the fact is not ſo as above ſuppoſed, but I muſt obſerve that if it could be made out to be true, though it would follow that there was but one kind of ſubſtance in nature, it would not follow that this ſubſtance was body: for the idea of body including inertneſs and ſenſeleſneſs, if the atoms were ſentient the conſequence would be that they were ſpirits, and mankind would have been all this while under a deluſion in taking the trees, the ſtones, the earth, they ſee for bodies, when they are not in reality ſuch, but cluſters of ſpirits held together by the delight they take in one another's company; and if any im-
portant particles of light come to intrude among them, they drive them in great hurry away to our eyes. But as this is a meer imagination, like Berkeley's ideal world, Leibnitz's pre-eſtabliſhed harmony and Hartley's

ley's mechanical volition, built upon bare poſſibility without ſupport of any proof, I ſhall remain perſuaded with the reſt of the world that the bodies we ſee and handle are ſubſtances of a different kind from ourſelves who ſee and handle them.

8. Now to compare body and ſpirit together we muſt acknowledge the character of ſubſtantiality belonging in common to both; but they are generally held to differ in theſe reſpects, that ſpirit is penetrable, unextended, having perceptivity and activity, by Mr. Locke called motivity, to which ſome add illocality, and others ſelf-motion; body ſolid, extended, ſenceleſs, inert, occupying ſpace and movable upon impulſe. I have already laid down the capacity and incapacity of perception and action for the diſtinguiſhing mark's of either, ſo have nothing more to add upon them: but concerning the other qualities, as I happen not to enter thoroughly into all the current notions of the ſchools, I ſhall take leave to deliver my ſentiments with the freedom of one who would judge for himſelf but without the arrogance of one who would ſuffer nobody elſe to do the like. I ſhall begin with penetrability which, tho' confidently aſſerted, appears to me a doubtfull point whereon we have not ſufficient foundation to determine either way: we ſee by

by a thouſand inſtances every day that bodies protrude and reſiſt one another; nor can the moſt yielding of them be forced into the ſame place by all the contrivances of art or powers of nature; but how know we what would be the caſe with ſpirit could we ſee the experiment tried? We live immured in walls of ſolid bone, ſo that we cannot come at our ſentient part to puſh againſt it with our finger, or apply it to the ſentient part of another perſon, in order to know the reſult. Could we pick a ſpirit out of its cell and move it along a line upon the table where there lay another ſpirit with ſome little body before, we might ſatisfy ourſelves what it would do. If we found it ſtop at both or protrude them forward, we muſt pronounce it equally ſolid with body: if it paſſed eaſily through the body but ſtopped at the ſpirit, we muſt conclude body and ſpirit alike ſolid with reſpect to ſubſtances of their own kind but penetrable by thoſe of the other: if it found reſiſtance from neither, we might then pronounce penetrability the diſtinguiſhing property of ſpirit: but theſe are trials we can never have an opportunity of making.

Were I permitted to conjecture in a matter wherein nothing better than conjecture can be had, I ſhould ſuppoſe ſpirit naturally penetrable, but capable of rendering itſelf ſolid up-

on occaſion with reſpect to particular bodies, and that hereon our activity depends. I have formerly given my reaſons for imagining that the force wherewith we move our limbs is derived from the animal circulation ruſhing into the muſcles through certain nerves, and that the orifices of theſe nerves are provided with ſtoppers which the mind draws up at pleaſure to give the animal ſpirits admittance: now what ſhould hinder our conceiving theſe ſtoppers puſhed up by little hairs or fibres whoſe other ends lie within our ſpiritual part, which by its natural penetrability admits them into the ſpace where itſelf reſides? but upon the mind rendering herſelf ſolid with reſpect to any particular fibre, it is driven forward, thereby lifts up the ſtopper and opens the paſſage into the nerves; until volition forbearing to act the penetrability returns, the fibre no longer preſſed falls back to its former ſtation, the ſtopper following cloſes the paſſage and muſcular motion ceaſes. Whoever ſhould think this conjecture probable would ſee that ſpirit poſſeſſes the united powers of body and ſpace: for body reſiſts but cannot admit, ſpace admits but cannot reſiſt, whereas ſpirit can either reſiſt or admit as it pleaſes. Nor let it be made an objection that upon the fibre entring the reſidence of the mind there muſt be two ſubſtances exiſt-

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ing in the ſame place, for I ſee no inconſiſtency in imagining ſubſtances of different kinds to co-exiſt together: if ſpace be a ſubſtance all bodies co-exiſt with ſome portion of that, and if there be a Being which fills all immenſity, all other ſubſtances muſt co-exiſt with it or they will have no where to exiſt at all.

9. I have already owned that I have but an imperfect notion of what the ſchoolmen underſtand by extenſion; if it imply a conſiſting of parts I cannot be ſuſpected of aſcribing that to ſpirit after the pains I have taken to prove that perceptivity can belong only to individuals. But I have an idea of a thing being extended without parts, and ſo have other people if one may judge by their diſcourſes: for I have heard of the ſtench of a brickiln reaching into the houſes in London, and of a noiſe extending many miles around, yet I never heard anybody talk of the half or the quarter or any other part of a ſmell or a ſound. And though theſe be not ſubſtances yet having once gotten the idea of extenſion without parts, I do not ſee why we may not apply it to ſubſtance, which we may conceive exiſting and preſent throughout a certain portion of ſpace without loſing its unity. I cannot well be denied the poſſibility of ſuch a diffuſed preſence by far the greater part of

mankind who hold a ſimple indiviſible Being preſent in all the regions of immenſity. But that we ourſelves have this extenſion in my ſence of the word, though bounded within very narrow limits, we may be ſatisfied by conſiderations drawn from facts falling daily under our notice and principles univerſally agreed upon. It is an uncontroverted maxim and may paſs for a ſelf-evident truth, that nothing can act or be acted upon where it is not, and though bodies ſeem to act at a diſtance there is always ſome medium paſſing between the agent and the patient, nor is anything done to the latter before the arrival of the medium. Thus an engineer may batter down a wall a mile off, but the ball does no execution until it touches the wall. In like manner we ſee and hear and are otherwiſe affected with bodies lying far from us, but then ſomething muſt be thrown from them to ſtrike upon our organs and raiſe motions there which are propagated onward to the ſeat of perception: nor can we receive ſenſations of any kind, unleſs the nerve or animal ſpirit or ether or whatever elſe it be immediately exciting them, either penetrates the mind itſelf or at leaſt comes into contiguity with it.

Now let us ſuppoſe a cheſs board with double ſets of men, a red and a green beſides

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the yellow and black, ſo that every ſquare of the board may be covered with a piece: ſet this board upon a table before you and I believe it will be granted me that you may have a diſtinct view of all the pieces at once. We cannot imagine that matter raiſes different ſenſations otherwiſe than by a difference of ſize or figure or velocity or direction or compoſition or other modification, but the ſame particle of matter can be ſuſceptible of no more than one modification at once, therefore there muſt be ſixty-four particles at leaſt operating upon the mind together in the above experiment, I ſay at leaſt for tis more than probable that each object upon the board employs many particles to convey its idea: which ſixty four particles cannot poſſibly enter nor become contiguous to a mathematical point, and conſequently the mind muſt at the ſame inſtant be actually preſent throughout ſuch a portion of ſpace as may touch or contain them all. This ſpace I ſhall call the ſphere of our preſence, not that I pretend to know it muſt be round, but becauſe it is the faſhion to apply that term to every figure we know nothing of. If the

bove uſed be juſt, and I can diſ-
r in them, they will demonſtrate
e difference between ſpirit and
he ſphere of a ſpirit's preſence

be found at leaſt equal to the ſpace occupied by ſixty four particles of matter: therefore though the atoms ſhould be ſentient they cannot receive near the number nor variety of ideas whereof we are capable.

10. Nor is this ſphere of preſence a novel thought of mine but at leaſt co-eval with Ariſtotle, of whom it is currently believed that he held the mind, called by him Entelechia, co-exiſtent with the whole body, being all in all and all in every part: by which it is plain he apprehended it to be a true individual yet preſent and perceptive throughout the whole ſpace occupied by the body, for had he thought it a compound it would not have been all in every part but one portion of it in one limb and the others ſeverally in the reſt. Indeed this notion of his is generally exploded and ridiculed becauſe he carried the ſphere of preſence a great deal too far, for we are now aſſured by experience that when the nerves are any where obſtructed in their paſſage to the brain no ſenſation will enſue though the external organs continue to perform their office, whereas were the mind actually preſent in the eye ſhe might diſcern what paſſes there notwithſtanding any obſtruction of the optic nerves within. But the ſame objections do not lie againſt me who ſuppoſe the ſphere of preſence

ſence to encloſe an exceeding ſmall compaſs ſituate probably ſomewhere in the brain, yet large enough to contain many variouſly modified particles of matter, though not large enough to hold the hundredth part of thoſe floating about in our ſenſory; for which reaſon we remember much more than we can at any inſtant recollect, and ſometimes have an expreſſion or a name at our tongue's end which we cannot bring out, becauſe we cannot draw the particle whoſe modification is the idea of it into our preſence for inſpection. And there is another particular wherein I have the misfortune to diſſent from Ariſtotle, for if the entelechia be commenſurate with the body, it muſt grow as that grows and contract when that is diminiſhed, having a much larger ſcope in a man of full ſtature than it had in the ſucking child, or if the man loſe an arm, it muſt withdraw from the ſpace occupied by the arm. But I apprehend the preſence of a ſpirit incapable of becoming either larger or ſmaller than ever it was: for as a ſolid particle of matter muſt always occupy, ſo a ſpirit muſt always be preſent in the ſame extent of ſpace, magnitude in the one and preſence in the other being an eſſential primary property annexed indiſſolubly by nature to the ſubſtance poſſeſſing them.

11. Tis true there are inſuperable difficulties among our ideas relating to magnitude, which whoever delights to puzzle himſelf with may receive good aſſiſtance in the ſport from the notes in Bayle's dictionary under the article Zenon. One way by which he diſapproves the reality of magnitude is becauſe in all continued motions the moving body perpetually changing its place muſt be in two places at once, that is, in every inſtant or moment of its paſſage, for it never ſtands a moment ſtill. But to add to the foreſaid ſport I would beg leave to aſk Monſieur Bayle how he knows there are moments of time any more than mathematical points of ſpace or atoms of body, or that a minute may not be infinitely diviſible as well as an inch of whipcord or of empty vacuum: which if it may then his argument of the moving body being in two places at once will fall to the ground. Theſe amuſements may ſerve to convince us there are ſubjects in nature beyond our comprehenſion, ſome queſtions to which the wiſeſt man can give no better anſwer than I do not know, and to confirm what I have laid down in my chapter on judgement, that abſolute certainty was not made for man: yet do they not impeach what was added there, that man is ſo conſtituted as to do very well without it, being capable of rational

rational moral assurance to the exclusion of all doubt, which is knowledge enough for the direction of conduct and to answer all the uses of life. And since what knowledge we have derives all originally from sensation, that is best to be depended upon which lies nearest the fountain head being drawn from experience by the finest deductions of reasoning. Now constant experience testifies that bodies cannot have different magnitudes, forms, velocities, directions or other modifications at the same time, that while under the same modification they cannot act variously upon one and the same subject, that many of them must have so many several places to exist in which cannot lie in contact with a mathematical point, nevertheless that they act very variously upon us in the business of perception at the same instant, and that it is the same Self which receives all their various actions: from whence the sphere of presence, belonging to one individual substance, follows by a single consequence, without that long chain of subtile deductions hung upon one another which must be travelled through before you can discover the force of Bayle's objections, every step wherein still encreases the hazard of an unperceived fallacy. As this notion of an individual substance, existent and present throughout a divisible portion of space, will be made

made uſe of upon ſeveral occaſions by and by, I wiſh it might be maturely conſidered before proceeding any further: for I do not pretend to infallibility nor deſire to lead any man into an error through haſtineſs, therefore let him not truſt to my concluſion but turn over the matter in his thoughts till he has digeſted it maturely and ſatisfied himſelf whether this, which is one of my foundation ſtones, has a ſolidity ſufficient to bear any ſuperſtructure I may hereafter raiſe upon it.

12. There is one quality more belonging both to body and ſpirit to which we can neither give a name nor a deſcription, but whereon their vital union together depends. We know that wherever the body goes, the mind conſtantly accompanies it and keeps her ſtation always in the ſame part of the human frame, but by what power of either this happens we cannot diſcover. It cannot proceed from ſolidity, impulſe or perceptibility in the one, nor from penetrability, activity or perceptivity in the other, but muſt be a diſtinct quality of itſelf. If I could come into Stahl's notion of digeſtion and nutrition being an operation of the mind and that ſhe can perform a voluntary act without the leaſt idea of anything relative to what ſhe is about, I might ſuppoſe the mind held in junction with the body by her own unperceived volition:

tion: but as I happen not to enter into his ſentiments upon that point, I cannot take the benefit of them to draw ſuch concluſion. Yet perhaps the junction may be ſo far owing to the mind as to depend upon the forbearance of her volition, and that ſhe might detach herſelf at any time had ſhe ideas of the proper manner how to proceed for effecting it: for we may have powers which we cannot exerciſe for want of knowing them, ideal cauſes being a neceſſary preparatory to action. But in our preſent condition it is fortunate that we have not ſuch ideas, for our perceptions all coming to us by the action of our bodily organs, were we to quit them we might loſe all our ideas and ſo never know how to get back again. Nevertheleſs it is not inconceivable, as we ſhall endeavour to ſhow in another place, that the mind may ſtand in a ſituation to receive perceptions without corporeal organs, and then may join herſelf to particles or ſyſtems of matter occaſionally without loſing her ideal cauſes flowing from another fund.

13. The notion of illocality is at leaſt as old as Ariſtotle but has been continued down to the moderns, for Cudworth declares himſelf of that opinion: but though he will not allow ſpirit as ſuch to have any place, he admits it may have one with reſpect to the body

body whereto it is vitally united, wherefore he tells us ſome held that ſpirit muſt always be vitally united to ſome Body or other that it may have a place in nature; which ſeems to make the very exiſtence of ſpirit to depend upon body, for I cannot conceive a thing to exiſt at all which has no place in nature. I apprehend this doctrine of illocality aroſe from the defining extenſion a having parts without parts, for thoſe who held this definition could no more conceive a mathematical point in ſpace than in body; therefore whatever had a place muſt poſſeſs ſome portion of ſpace, which being diviſible, ſo much of the ſubſtance as lies in the right hand half of this portion will be a diſtinct part from that which lies on the left. And that this was Ariſtotle's way of thinking appears manifeſt becauſe he allowed a Where to ſpirit though he would not allow a place; which ſeems to me a diſtinction without a difference, for to be ſomewhere or in ſome place are in my comprehenſion ſynonimous terms. But I do not apprehend the individuality of a ſubſtance depends upon the individuality of the ſpace wherein it exiſts; if we cannot conceive the one without the other it is becauſe our conceptions are taken from the bodies we ſee, whoſe diviſions always correſpond with thoſe of the ſpaces they

they occupy: but we muſt upon many occaſions admit concluſions we cannot conceive, therefore our want of adequate conception is not ſufficient to overthrow the reaſons before given for the individuality of ſpirit and at the ſame time its preſence throughout a ſpace conſiſting of diſtinguiſhable parts.

14. But which way ſoever we expreſs ourſelves we cannot well appropriate mobility to body nor deny that ſpirit partakes of the like quality, without which there can no more be made a change of Where than a change of Place. While in my chamber this morning I was one where, now I am come down into my ſtudy I am other where, this Ariſtotle muſt needs grant me: but how I could get either from one where or one place to another where or another place without loco-motion let him that can comprehend it explain.

15. Some have ſuppoſed the mind able to move herſelf by her own energy, which cannot well conſiſt with what I obſerved long ago, that our idea of Operation requires there ſhould be two ſubſtances concerned, one to act and another to be acted upon: but waving this difficulty, if the mind has ſuch power we can never know it becauſe ſhe cannot exert it in her preſent ſtate. We live impriſoned in walls of fleſh and bone and like a

ſnall

ſnail can ſtir nowhere without our houſes accompanying us: when we walk we act upon our legs which thruſt the body forward and that moves the mind along, ſo that in walking we are as much carried as when riding in a coach driven by our own orders. Nor let it be thought the mind moves herſelf becauſe in our ordinary movements ſhe goes willingly along with her companion, for this is not always the caſe; a man may be pulled forcibly from his ſeat tho' he reſiſt and ſtruggle ever ſo much or be ever ſo averſe to ſtirring, or he may be carried in his ſleep when there is no exerciſe of volition: but in theſe caſes when the body is dragged away the ſpirit will not ſtay behind, which manifeſtly ſhows it paſſive to receive a motion it cannot avoid.

16. Since we find a paſſive loco-motion in ſpirit we muſt acknowledge it capable of impulſe from body, for body can give motion no otherwiſe than by impulſe; and that ſpirit is capable of imparting impulſe we know by our moving our limbs. But impulſe whether given or received does not neceſſarily excite perception, for we have none either of the particles vitally united to us or of thoſe ends of fibres whereon we begin our action. Therefore we muſt look for ſome other property in body rendring it perceivable, and this we may call perceptibility without which per-

perceptivity in ſpirit would be of no avail; for to produce an effect there muſt be an active power in the agent as well as a paſſive power in the recipient. Whether ſpirit has the like perceptibility too we can never certainly know, becauſe we can never try the experiment neceſſary to diſcover it. If I may be permitted to conjecture once more I ſhould ſuppoſe this not a primary quality in body, but reſulting from a combination of many particles thrown into particular figures or other modifications, becauſe primary qualities muſt act uniformly nor could they exhibit that variety of ideas we perceive. Why then may not ſpirit, by virtue of its indifference either to ſolidity or penetrability, imitate the like modifications? Suppoſe a piece of marble ſkillfully engraven ſo as to leave the letters of a word ſtanding out from the reſt of the ſurface, if the marble were laid upon your hand you might feel and underſtand the word. What then ſhould hinder but that a ſpirit, being contiguous to another, might make itſelf ſolid in the parts of the ſphere of its preſence correſponding with the ſhape of the letters, leaving its natural penetrability in the ſpaces between, which then might produce the ſame effect as the marble did upon your hand. And thus ſpirits when diſencumbered from the ſhackles

of

of matter, may communicate the ſame perceptions, beſides thouſands more, that we receive from our organs both of ſenſation and reflection.

CHAP. VI.

Duration of Mind.

FROM the individuality and diſtinct exiſtence of Mind may be inferred her perpetual duration, for the powers of nature can neither encreaſe nor diminiſh the ſtock of Beings; they may throw them out of their aſſortments and ſo diſſolve the compounds formed thereby, or deſtroy the ſecondary qualities reſulting from their compoſition, but what has exiſtence cannot be annihilated and what is one cannot be divided, nor can primary qualities eſſential to the ſubject poſſeſſing them be taken away. Perceptivity and activity have appeared to be the properties conſtituting the eſſence of ſpirit and diſtinguiſhing it from other ſubſtances: as to what has been offered concerning ſolidity, extenſion, locality and mobility, whether it ſhall

ſhall be received or no affects us not at preſent.

2. So far then as relates to the individuality, exiſtence and inherent perceptivity of ſpirit I may be counted orthodox, but I will not undertake to preſerve that character always, for I am now going to ſide for a while with the corporealiſts whom I take to have the advantage in ſome particulars over their antagoniſts. Nor can this be called a deſertion, for I have never ſworn implicit obedience to any maſter, but have claimed to uſe a ſober freedom to examine whatever I ſhall hear ſuggeſted from any quarter. I laid down in my general introduction as a reaſonable preſumption, that the tenets of every ſect among mankind muſt contain a mixture of truth for elſe they would never have gained credit, becauſe men do not wilfully embrace error but are led into it by unwary concluſions from ſomething for which they have a ſolid foundation. If ſuch preſumption be thought a prejudice, and who can keep perfectly clear from prejudice? it is a more excuſable one than that which proceeds from the ſpirit of oppoſition. For this engages men to treat an antagoniſt as an enemy and even to deny him the rights of an enemy, but my propenſity to judge the beſt of every one inclines me to ſeek excuſes for him in the fallibility of human reaſon, which

draws falſe concluſions from true premiſes: therefore how erroneous ſoever I may judge the corporealiſts in the main, I am better ſatisfied in diſcovering ſome latent fallacy miſleading them in their deductions than if I could find nothing ſimilar in their way of thinking with my own.

3. Now the particulars wherein I apprehend them not ſo groſsly miſtaken as commonly ſuppoſed are theſe, That ſenſe, thought and reaſon, reſult from an organization, therefore whatever poſſeſſes thoſe faculties muſt be a compound. No doubt I ſhall be thought to contradict myſelf herein, having all along uſed ſentient, percipient and perceptive, as ſynonimous terms, and contended ſo ſtrenuouſly that every ſubſtance to which thoſe epithets belong muſt be one and uncompounded. We have had no occaſion hitherto to diſtinguiſh between thoſe terms, and to have done it while needleſs would have tended only to perplex and burthen our thoughts; but I am now under a neceſſity of making a diſtinction between percipience and perceptivity, which though a pretty nice one I hope to make it underſtood. The powers we aſcribe to ourſelves in our diſcourſes depend partly upon our natural abilities and partly upon the inſtruments we have to employ: a man may be called a good rider that is expert to keep a firm ſeat upon the ſaddle,

but

but while marching among the infantry he is no rider at all; or he may be pronounced able to ride a hundred miles in a day if he have ſtrength to ſupport the fatigue, but he is not able to ride twenty without a horſe or with a lame one. So when we find a perſon aſleep or meet him in the dark, we may affirm of him that he has a very piercing ſight, if we know his optics are good, yet in theſe ſituations he can no more ſee than the table. In like manner a ſubſtance is perceptive that has a quality of perceiving objects upon application of them, yet it cannot perceive without a proper conveyance to bring the impreſſion of objects to it: therefore if it be ſo placed as that no impreſſion can ever come at it, it is no more percipient than any clod in the fields. Thus perceptivity is nothing elſe beſide a bare capacity in the ſubject to receive perceptions when excited, but ſence or percipience is the ſtanding ſo circumſtanced as that the impulſe of objects ſtriking upon us may be tranſmitted ſo as to raiſe perceptions: and this requires an organization which implies a compound of many parts, for I can no more ſee without eyes, hear without ears, nor meditate without organs of reflection, than I could without a perceptive ſpirit to receive the notices tranſmitted thereby. What notices a ſeparate ſpirit might receive from

other ſubſtances accidentally approaching it I need not now enquire, for all the percipients we have any knowledge of, being vitally united to ſome organization and their perceptions depending thereupon, we may ſafely pronounce all the percipients we know to be compounds.

4. And the caſe is plainer with reſpect to the faculties of remembrance, conſciouſneſs, reaſoning, judging, dividing, comparing and all other modes of thinking: for we cannot remember or be conſcious without inſpecting the records lying in our memory, we cannot judge without a diſcernment of ſomething diſtinct from that which judges, in reaſoning we employ our organs of reflection to bring the proper materials before us for our contemplation, and when we divide and compare there muſt be ſomething within us exhibiting the objects wherein we obſerve a difference or ſimilitude. Therefore thoſe who define the mind a thinking ſubſtance neceſſarily make it a compound whether they diſcern the conſequence or no, for cogitation cannot be performed without the command of certain inſtruments to bring ideas before us for our inſpection, to change, to marſhal, to ſeparate them, and trace their connections or relations from one inference to another. For this reaſon I remarked in the chapter of ſenſation that

that Mind was an equivocal term uſed to expreſs two very different things, which I called the philoſophical and the vulgar mind, though I cannot help acknowledging that men of thought and learning for the moſt part underſtand it in the vulgar ſence or rather confound both together. The former I take to be a pure uncompounded ſpirit endowed with perceptivity and activity, but incapable of actual perception or action without an organization ſuited to its purpoſes: by the latter I underſtand this ſame ſpirit together with ſo much of its organization as is concerned in the buſineſs of thinking and reflection, which muſt be a compound conſiſting chiefly of corporeal parts ſeparable from one another and all of them from the ſpirit whereto they are united. In this mind our faculties of reaſon and memory, our knowledge, our talents, our habits, our paſſions, our ſentiments, and whatever elſe diſtinguiſhes the characters of men, reſide: and this mind I apprehend to be the ſame with what is commonly called the human ſoul.

5. If any ſhall take offence at my making the ſoul compounded, diſſoluble and periſhable, let them conſider it is not I who make it ſo but themſelves by their application of the term: for words are meer arbitrary ſigns, capable of taking any ſignification that man-

kind ſhall agree to put upon them. Were I left to myſelf I ſhould apply the name of Soul, to our ſpiritual part alone, and ſhall do ſo ſometimes where the matters I handle will admit of it; and then after all that has been delivered already nobody can ſuſpect me of holding it periſhable. But the misfortune is that men in their diviſion of body and ſoul do not make the ſeparation clean, but take in ſome finer parts of the former into their idea of the latter, as appears manifeſt by their aſcribing faculties to it which cannot ſubſiſt without an organization: for a naked ſpirit is no more a thinking ſubſtance than it is a walking ſubſtance, it can indeed think whenever joined in compoſition with proper organs of reflection, and ſo it can always walk in compoſition with legs and crural muſcles. Thus after the uſual diviſion of man into body and ſoul we may again ſubdivide the latter into organization and ſpirit; but this ſubdiviſion being not ordinarily taken notice of, the term Soul becomes applied indifferently either to the perceptive ſpirit or to the whole percipient containing that in conjunction with its ſyſtem of reflective organs. While men remain unſettled and variable in their notions of the ſoul they muſt not blame me for ſpeaking of it in a manner they do not like, or that ſeem contradictory to what I have

have ſpoken concerning it at other times, for this will unavoidably happen ſo long as in compliance with cuſtom I am obliged to vary the idea belonging to the term. So then the queſtion concerning the corruptibility of Mind or Soul is a queſtion of language rather than of fact, and may be truly anſwered Ay or No according to the different ſenſes wherein you underſtand them. And the like queſtion capable of contrary anſwers may be propoſed concerning Perſon: who does not acknowledge himſelf mortal, that he was taken from duſt and ſhall crumble into duſt again, and in a few years ſhall be no more; we hear ſuch expreſſions uſed every day and they are juſtly uſed while we conſider our whole human frame as ourſelves. But in our ſeaſons of abſtraction when we reſtrain Self to the ſpiritual part we change our tone, for then we claim to be perpetual, unperiſhable and unchangeable, to flouriſh in immortal youth, unhurt amidſt the war of elements, the wreck of matter and the cruſh of worlds.

6. Thus in diſputes upon the nature of the ſoul, while it was defined a reaſoning, thinking, ſentient ſubſtance the corporealiſts ſeem to h[illegible] advantage. For iſſue being joi[illegible] ſimplicity or compoundneſs, it [illegible] on both ſides that if com- I [illegible] aterial: therefore finding

it uncontroverted that every compound muſt be made up of matter, and being unable to conceive the faculties of reaſon, thought and ſence, reſiding in a ſimple ſubſtance, they were not quite abſurd in concluding the ſoul to be no more than a very curious aſſortment of corporeal particles. But if we take along with us our foregoing diſtinction between percipience and perceptivity, we may admit a ſentient compoſed of unſentient parts, yet deny that ſuch compoſition could conſiſt ſolely of matter, but muſt contain one perceptive ingredient to receive the notices brought by the reſt. For if a grain of ſand were placed where the ſpirit reſides in the moſt exquiſite organization that can be contrived, there would be no more thought or percipience in this compound than there is in the Venus de Medicis.

If any one ſhall ſtill make a difficulty in diſtinguiſhing between a capacity and a power of perceiving, let him conſider whether he does not apprehend a difference between a blind man and one with good eyes ſhut up in a coal hole: both lie under an impoſſibility of ſeeing, yet both have not loſt their ſight. When Ulyſſes ſtopped the ears of his crew with wax on ſailing by the Sirens, he did not deſtroy their ſenſe of hearing though he put it out of their power to hear the enchant-

ments,

ments. And a ſtrong man bound hand and foot becomes unable to ſtir, yet retains his vigour and natural ability to move. So a ſpirit may retain its perceptivity, that is, capacity of receiving perceptions whenever excited, after loſing its percipience or power of perceiving by being removed from every thing which might bring objects to excite them.

7. Having ſatisfied ourſelves that our ſpirit or ſoul, if I may give that appellation to the ſpiritual part ſingly, ſhall have a duration beyond all the powers of nature to cut ſhort, our next ſtep will be to examine what we ſhall carry with us upon quitting our preſent habitation: and we can aſſure ourſelves of no more than our two primary faculties of perceptivity and activity, which being inherent in our conſtitution nothing can diveſt us of. But theſe will avail us little of themſelves, for we ſhall neither be able to perceive nor act without ſomething added thereto, furniſhing ideas for us to perceive or materials for us to act upon. Therefore the knowledge of our perpetual duration and perceptivity affords us no light to judge of our condition hereafter: we know that we ſhall continue exiſtent and capable of receiving perceptions, but what perceptions ſhall accoſt

accoſt us, whether thoſe of pleaſure or pain, of ſagacity or dulneſs, or none at all, we are utterly ignorant. Nor can we tell that our percipience ſhall remain, nor whether we may or may not carry with us that part of our organization wherein our faculties of reflecting, judging, thinking, reaſoning, reſide. After what has been ſaid of the extreme diviſibility of matter, it appears poſſible that we may have a compleat ſyſtem of organs within us ſo ſmall as to eluſe all our obſervation, too fine to be diſcerned when going or to be miſſed when gone: ſo that notwithſtanding all the appearances upon death and though the carcaſs ſeems to loſe nothing of its weight, there may be a little body compoſed of members fitted for ſenſe and action which flies off unperceived. But ſhould this be the caſe and ſhould our ſenſitive and rational faculties accompany us, they may be reduced to bare capacities without power of helping ourſelves to a ſingle idea unleſs ſome foreign aid ſhall befriend us. For we have ſeen in the progreſs of theſe enquiries how the mind in her acts of recollection, of reaſoning, of habit and paſſion, communicates with the animal circulation: how know we then that ſhe can perform her operations at all when ſeparated therefrom? We find ourſelves more or leſs ready

ready at thoſe operations according to the diſpoſition of our body, and when the communication is cut off by fits or ſleep we cannot perform them at all. Therefore it is not impoſſible that the cauſes bringing us all our ideas may reſide in the groſſer parts of our body, that upon parting from them we may loſe our remembrance, our knowledge and all our acquirements, and paſs into another ſtate as much a blank paper as ever we came into this, capable of taking any writing that ſhall be marked upon us but having all that was written before quite eraſed.

8. Or it may be that our whole material frame ſhall be diſſolved and the ſpirit fly off naked and unattended by any organ, yet retaining its perceptivity we know not how it may be affected by any corporeal particle coming into contiguity or entring the ſphere of its preſence. Some have aſſerted that our perceptions are excited, not by animal ſpirits or fibres, but by vibrations of ether pervading their interſtices: if this be true we ſhall not want for ether wherever we go, but how the ſtronger vibrations of ether at a diſtance from groſs bodies ſhall affect us we are utterly at a loſs to gueſs. Neither can we be aſſured concerning the perceptibility of other ſpirits, whether they may exhibit ideas to one another,

ther, whether ſuch operation be neceſſary or voluntary, nor how they may ſtand diſpoſed either to comfort or torment us.

9. In either caſe our condition will be determined by the objects accoſting us and company we fall into. We are here luckily ſituated in an organization enabling us to help ourſelves to the conveniences and enjoyments of life, but when turned out of this we know not where to find ſuch another nor how to get into any other at all. Though ſurrounded with dangers on all ſides we have ſence and experience to avoid them, but when diveſted of our ſence and experience we may be like a blind man turned out into a crowded ſtreet, having nothing but chance to direct our ſteps, inſenſible of miſchiefs before they fall upon us and unknowing which way to eſcape them. We may be toſſed about among the elements, driven by ſtreams of air or whirled round in circles of fire, the little corpuſcules of light may hurt us and the ether teaze us with its continual repulſion: in ſhort we have every thing to fear and little to hope for. Thus the diſcovery of our durable and perceptive nature affords no comfort, for while we confine our contemplation to that, the proſpect lies diſmal, dark and uncertain before us. Let us then turn

our

our thoughts upon external nature in order to diſcover what rules and powers there may be governing that, in hopes of learning ſomething how they may affect us and in what manner we are likely to be diſpoſed of.

CHAP. VII.

EFFECTS AND CAUSES.

THOUGH we are all convinced of our ſhort continuance in this preſent ſtate, we are well ſatisfied that the courſe of nature will not be interrupted by our departure: the Sun will ſtill riſe and ſet, the tides ebb and flow, the trees continue to bear their fruits, the cattle to multiply, the earth to yield her encreaſe, and the buſineſs of mankind to go forward, after we are dead and gone. But the contemplation of theſe things gives us no inſtruction how to provide for our future accommodation, nor furniſhes us with any light to diſcover what accommodations may be provided to our hands. Shall we heap up riches? thoſe we muſt leave behind, or could we carry them with us our money would not paſs current in the other world.

world. Shall we plant gardens or breed up numerous flocks? their produce will not ſuit our digeſtion. Shall we raiſe a family or ſpread our fame amongſt mankind? we may not remember our own names nor have an intercourſe with the living to know what they ſay of us. Shall we improve knowledge and cultivate the ſciences? our ideas may be totally different and our ſciences unintelligible to us. Shall we rectify our diſpoſitions of mind and lay in ſtore of virtues? theſe are habits wherein the animal circulation is concerned, nor can we be ſure they ſhall continue when that is removed from us. Shall we be carefull to nouriſh the little body that is to ſerve us for our next habitation, to invigorate its limbs and quicken its organs? we know not where they lie nor what we can do to improve their growth. And as we can do nothing of ourſelves, ſo neither have we aſſurance of anything that will be done for us: we know not what neſts ſhall be provided to hatch us into life, nor what parents we ſhall have to protect our tender infancy and teach us the learning neceſſary for our conduct; what ſuſtenance the air may afford, or where to find it, or whether we ſhall want any ſuſtenance at all; what variations of weather may prevail in the ether anſwering to the pleaſing warmth of a vernal ſunſhine

ſhine or the ſtorms and inclemencies of winter, nor how to ſhelter ourſelves from the latter. The ſubtile fluids cauſing gravitation, coheſion, electricity and magnetiſm, may ſtrike our new ſenſes inſtead of lights, ſounds, ſavours and odours, and fill us with agreable or troubleſome ſenſations. We may meet with different ſpecies of animals proportionable to our ſize, anſwering to ravenous birds and beaſts of prey or ſuch as ſerve for our uſes in life. We may fall into ſocieties of fellow-creatures among whom we may find friends and enemies, who may give mutual delight by their converſation or vex one another with their contrariety of tempers and oppoſition of intereſts. Since then we can find nothing certain by conſidering the conſtitution of particular things, let us ſearch for the general laws prevailing throughout all nature: for perhaps we may ſee that their influence muſt occaſion ſome reſemblance or ſimilar tendency in the municipal laws of the ſeveral regions of nature, and we may diſcover ſome methods of conduct whereby to put ourſelves in a ſituation to receive benefit and eſcape damage from that influence. But as thoſe laws depend upon the cauſes operating in the productions of nature, we muſt endeavour to inveſtigate the cauſes from their effects

effects diſcernible to our ſenſes or diſcoverable by our reaſon.

2. We may diſtribute our proſpect of nature into three parts, primary qualities, motion, and ſituation, which concur in every operation we ſee or can think of. When a cannon ball daſhing into a heap of ſand diſperſes it all about, the ſituation into which the particles are thrown follows from their ſeveral ſituations in the heap and the contact or propinquity of the ball when ſtriking, from the violent motion wherewith it ſtruck, and from its ſolidity to give and their own ſolidity to receive an impulſe. So the growth of plants is owing to the near ſituation of nutritious particles in the earth that bears them, the poſition of their little parts in fibres and tubes fitted for containing the ſap, to the action of Sun and air, and to the properties of matter whereon that action depends. Nor is the caſe different with reſpect to the acts of free agents, which cannot proceed without a cloſe ſituation of that which is to be the ſubject of their action or object of their perception, nor could their organs take a different modification whereby to exhibit different ideas without a motion in their parts, nor could anything be perceived or done without perceptibility and mobility in body or perceptibility and motivity in ſpirit.

And

And there are three cauſes commonly obſerved in the phenomena we ſee, Chance, Neceſſity, and Deſign. When the wind drives about the ſeeds of thiſtles, they fall in particular ſpots by chance; where they light, the peculiar contexture of their parts makes them neceſſarily produce plants of their own ſpecies; and when we cultivate and dreſs our ground, ſow our corn, keep it weeded and harveſt it, we proceed by deſign.

3. I ſhall begin with the conſideration of motion without which the courſes of nature cannot be carried on: but this we may ſatisfy ourſelves is not a quality of body, which is a movable but no more a moving than a quieſcent ſubſtance, being alike indifferent to either ſtate and continuing in either until put out of it by ſome foreign force. We ſee bodies moved by other bodies ſtriking or ſhoving againſt them, but the mover gives no more motion than it had itſelf before and always loſes ſo much as it has imparted to another. And though motion ſometimes ſeems to proceed from the preſſure of quieſcent bodies, there is always ſome external impulſe occaſioning the preſſure: for two bodies meeting with equal force in oppoſite directions, after having ſtopped one another, will lie for ever cloſe together gently touching but not preſſing each other unleſs ſomething

puſhes or ſtrikes againſt them on the outſide. Tis true we ſee motion frequently produced without diſcerning the cauſe, but then experiment and reaſon aſſure us that bodies never produce motion, but only tranſmit it by an impulſe ariſing from their natural property of perſevering in a motion once received. Thus while we confine our thoughts to matter, it will appear that every motion is the product of ſome preceeding motion, transferred from body to body and incapable of increaſe by the tranſlation. That there is an inexhauſtible ſource of impulſe ſomewhere, though undiſcernible by our ſenſes, we may reſt aſſured when we conſider the diſſolving power of menſtruums, the violence of fire, the ſtrong contraction of our heart and arteries, the ſtability of heavy maſſes held down by gravitation to the earth, and the firm coheſion of metals: all which muſt have ſome prodigious fund, we know not where to find, from whence to derive the force they exert. It ſeems not improbable there may be ſtreams of a moſt ſubtile matter much finer than ether itſelf darting inceſſantly along in all directions with inconceivable velocity: that the ſolid parts of quieſcent bodies lie in the ſpaces between theſe ſtreams, which likewiſe throw and preſerve the atoms in their longitudinal poſition of wire before ſuppoſed, that upon

upon the touch of fire thruſting any of the particles aſide into the ſtream, it daſhes them about againſt other particles, driving theſe likewiſe upon other ſtreams, and ſo cauſes that exploſion we find in gunpowder. Juſt as if an army were marching briſkly along in very wide ranks, another army in like looſe array might march quietly between them: but if a few men were puſhed into the others ranks, it would cauſe a violent commotion and toſſing to and fro among them. We may help ourſelves a little in this idea by conſidering a cube of glaſs hung up between candles on all the ſix ſides of it, the rays would paſs continually through without being ſtopped by the glaſs or jolting againſt one another; and this whether the glaſs remained ſtill or were ſwung to and fro: but if by a ſmart blow the parts of the glaſs were to change their poſition, forming a multitude of little cracks, it would become opake and not afford them a paſſage, in which caſe if the ſtreams of light were ſtrong enough they muſt rend the glaſs into atoms and keep buffetting them about until by frequent toſſings they had brought them to lie in the interſtices between themſelves.

4. It may ſeem at firſt ſight impoſſible that ſuch ſtreams of ſubtile matter ſhould be able to run in all directions without ſtopping

or joſtling one another: but let us conſider that we find by experience the ſame thing happens in the paſſage of light. Hang a multitude of candles round the room and you ſhall be able to ſee any one of them diſtinctly thro' the light of all the reſt. The ſtars ſcattered about in all parts of the upper hemiſphere find their way to our eyes, but they muſt traverſe many miles of thick ſolar radiance before they can come to that ſhadow of the earth which makes our night: and their rays falling upon my eyes muſt croſs thoſe falling upon the eyes of other perſons a mile around me in a variety of angles: yet all this without any ſtoppage or deviation from their courſe, for if they were at all affected by the other rays they paſs thro', it muſt cauſe perpetual refractions and we ſhould ſee them dance about like ſo many Will i'the whiſps. But what makes the difficulty in this caſe is our conceiving the rays of light to be ſo many continual ſtreams like thoſe of water, the parts touching cloſe upon one another, whereas it has been obſerved in CHAP. III. that the corpuſcules compoſing a ray of light may poſſibly keep a diſtance of a hundred ſixty miles behind the next preceeding them, tho' they follow ſo exceeding quick that we think their impulſe upon our optics continuous. Now the particles of ſubtile matter, being much

much ſmaller and ſwifter than thoſe corpuſcles, their bulk may be eſtimated to bear an infinitely leſs proportion to the ſpaces between them than a ſhip does to the length of one hundred leagues. Let us then imagine ſhips to ſail from every port in Europe to America and others from every port in America to Europe, each ſhip a hundred leagues behind that which parted laſt from the ſame port, and their courſes be ordered in ſuch manner as that they ſhould croſs over one particular ſpot of the ocean: thoſe ſhips would ſo rarely fall foul of one another as to make no perceivable interruption in commerce; why then may not the little particles be allowed to collide ſo ſeldom as to cauſe no diſturbance or interruption in the courſes of nature.

Another difficulty ſprings from the extreme minuteneſs of thoſe particles, which can hardly be thought capable of holding bodies together in ſuch ſtrong coheſion as we experience in metals: but let us remember that the momentum given by all mechanical powers is found by a compound ratio of their quantity of matter and velocity, ſo that any deficiency in the former may be made up by a proportionable encreaſe of the latter. Nor need we wonder that very ſmall agents ſhould produce great effects, ſince we know that the burſt of a cannon will ſhake a whole ſtreet,

but the particles of air giving immediate impulſe to the houſes can ſcarce be ſuppoſed to weigh many grains. The like appears in exploſions of gunpowder where the quantity of matter operating is a very trifle in compariſon with the heavy maſſes it raiſes and compact bodies it rends. I ſhall only remark further that this ſubtile matter, being the cauſe of gravitation, coheſion and repulſion, in other bodies, can neither gravitate nor cohere nor repell itſelf, becauſe it will want a prior cauſe to give it thoſe qualities: nor has it other power than that of impinging like a ſtone, by virtue of the prodigious velocity wherewith it darts along. Nevertheleſs we may count it the primum mobile or firſt material agent in all the operations of nature, as driving her two main wheels of attraction and repulſion, from whence all the leſſer works, the power of ſalts, acids, alkalies, of fire, fluids, electricity and magnetiſm, circulating veſſels of plants and animals, ſpring; glues and menſtruums derive their activity; according to their ſeveral ſtructure and poſition of their parts fitted to turn the motion of thoſe principal wheels upon them. Nor is it hard to conceive how two bodies may be made to attract by the action of this ſubtile matter, becauſe they muſt cover each other from ſo much of the ſtream as they receive themſelves

ſelves which would elſe have fallen upon the neareſt ſides of the others, ſo that this force being wanting to ballance that on their oppoſite ſides, they muſt neceſſarily be driven towards each other. Then thoſe ſtreams which fall very obliquely, like a cannon ball bounding from the ground, will drive off other bodies lying at a certain diſtance, from whence ariſes repulſion, which cannot take place between bodies too near together, becauſe in that ſituation they cannot receive a very oblique rebound, for it muſt paſs beſide them. This likewiſe accounts for the inequality between the two attractions, that of coheſion being found ſtronger than that of gravitation, becauſe bodies cohering have the whole force of attraction without a competitor to keep them together, whereas thoſe at a diſtance repell as well as attract, ſo that their gravitation is no more than the difference between thoſe two counteracting forces.

5. But wherever the ſources of this fund may lie or how copious ſupplies ſoever they may contain they cannot for ever anſwer all demands made upon them. We ſee bodies continually ſtrike againſt one another, and when they do ſo, if not elaſtic the motion of both ceaſes, or if elaſtic, the force whereby they rebound muſt be drawn from ſome ſuch fund as that abovementioned: every time a

man claps his two hands together he takes ſomething from the ſtock of motion which is to carry on the operations of nature. But the colliſions occaſioned by human action are very trifles in compariſon with that great quantity of force ſpent by nature in all her works: the bearing of rivers againſt their winding banks, the daſhing of ſeas againſt the ſhore, the oppoſition of winds from one another or from mountains, the ſyſtole or contraction of circulating veſſels in animals and plants, but above all theſe the gravitation of bodies to earths and ſuns, the coheſion holding the little particles of compounds together, the oppoſition of centripetal and centrifugal forces keeping the planets in their orbits, the repulſion of air and ether, muſt make a vaſt conſumption of motion every moment. So that the largeſt ſtores of force we can ſuppoſe nature once to have had muſt have been long ſince exhauſted, as being ſubject to perpetual diminution without any means of recruiting: and all matter muſt have been reduced to a ſtate of quieſcence by this time, unleſs perhaps ſome few ſtraggling atoms which might move about in ſpaces where they ſhould meet with nothing to obſtruct them.

6. Yet though the corporealiſts can find nothing to renew the decays of motion, we who claim motivity as an eſſential proper-

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ty of our own may fancy we find it in the action of ſpirit. Now ſhould this be thought to ſerve for reſtoring motion it could not ſerve for beginning it at firſt: for we do not act without cauſes as well final as ideal, wherefore the activity of ſpirit is ſet at work by the perceptibility of matter and the modifications it falls into by the motion of its parts preſenting us with the motives and guidance of our proceedings. For if nothing moved without us we ſhould have no ideas brought us to perceive, and without perception there could be neither inducement to exert our volition nor direction which way to turn it. So that upon either hypotheſis we muſt needs adhere to our former concluſion, that every motion is the conſequence and effect of ſome preceeding motion, and that it muſt begin in matter before it can be produced by any ſuch ſpirits as we have experience of.

7. And the like may be ſaid of ſituation which follows conſtantly from ſome preceeding ſituation. Matter is generally held homogeneous and that infinite variety of forms, conſtituting the eſſence of bodies falling under our cognizance, depends upon the ſtructure and order wherein the parts of them are placed. So that the ſame firſt matter makes a ſtone or a metal, a plant or an animal organi-

ganization, according to the poſition wherein the ſeveral individuals of it are ranged. Thus all ſecondary qualities ariſe from order, neither a clock nor a tree would be what it is, nor could perform its proper functions, if the wheels or the fibres were placed in any other manner than they are: the faculties of ſence, thought and reaſon, could not ſubſiſt unleſs the ſpirit reſided preciſely in that ſpot whereto all the organs of ſenſation and reflection tend; and the modifications exciting our ſeveral perceptions vary according to the poſition wherein the component parts of our organs lie. And that particular forms of order generate one another we may be ſatisfied by the growth of vegetables, where the peculiar ſtructure of the ſeed cauſes it to produce a plant of its own kind: and the ſtructure of plants occaſions them to yield flowers and fruits of various ſhapes, hues, odours and taſtes. In theſe things we are ready enough to acknowledge an order, but as has been ſhown in CHAP. X. of the laſt volume, we do not ſo eaſily admit it in poſitions not correſponding with our trains of imagination: nevertheleſs it has been made appear there that ſtrictly ſpeaking there is no ſuch thing as diſorder in nature, for every number of particles muſt lie in ſome ſituation with reſpect to one another, and that is their order however irregular

gular it may ſeem to our apprehenſion. Nor are thoſe apparently confuſed poſitions unfrequently ſerviceable to produce what we call order, for the particles nouriſhing a plant lie undiſtinguiſhed in the earth, the air or the vapours, yet they muſt have an apt poſition there or the plant could never draw them in to contribute to its growth. Thus in particular things their order does not depend ſolely upon the order they had before, but partly upon other things which are or may be brought contiguous to them or mingle among them. But the Univerſe, having nothing external, muſt receive its order continually from that it had in every preceeding moment; ſo that if the poſition of all ſubſtances could be known preciſely at any given point of time, it might be determined from thence what poſition they would take at any time hereafter. For if it were known how the air, the mountains, the burning ſands, the frozen ſeas, the ſubterraneous vapours and other cauſes affecting the weather, ſtand diſpoſed, we might prognoſticate what weather it would be tomorrow or this day twelvemonth. Nor would the action of free agents diſturb the calculation in changes of poſition wherein they are concerned; for if we could aſcertain the exact ſituation of objects ſurrounding them and ſtructure of their organs,

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we might foreſee what modifications theſe organs would fall into, what ideas and motives they would preſent, and conſequently how thoſe agents would act, and what alterations they would make in the poſition of bodies within their reach. But then in calculations of this ſort the article of motion muſt not be left out of account, becauſe it is that which generates one order out of another: nor is it enough to know the quantity of motion in the whole but likewiſe among what particles it is diſtributed and in what direction each of them proceeds, for it is obvious that the ſame motion in different directions muſt produce very different figures.

8. Secondary qualities, reſulting from the order wherein the ſubſtances forming a compound lie ſituate, are continually deſtroyed and renovated according to the changes made in that order by motions of the component parts. But primary properties belonging to individuals admit of no change, for what has no parts cannot have an order of parts: therefore theſe properties, being not generated by motion or ſituation, muſt remain conſtantly the ſame in the ſubjects poſſeſſing them. Body will always continue ſolid and ſpirit perceptive whether in motion or at reſt, whether in this part of the world or any other, whether contiguous to other ſubſtances

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or ſeparate from them all. So that primary properties ſpring from no aſſignable cauſe among the powers of nature, as motion and ſituation do from former motions and ſituations.

9. But the inquiſitive mind of man looks for ſomething further to account for the different properties of individuals; we find ſpirit active and perceptive, matter inert and incapable of ſence, or ſhould we fancy the atoms ſentient, it has been ſhown the ſphere of their preſence would be leſs than that of ours: tis natural then to aſk why there ſhould be ſuch a difference in ſubſtances? why they are not all homogeneous and primarily alike? And theſe properties, being inherent in their nature and inſeparable from them, muſt be as old as themſelves, and conſequently whatever occaſioned the difference between them muſt have been the foundation of their exiſtence. Nor will the mind be ſatisfied without a reaſon limiting the quantity of matter exiſting: there is no impoſſibility or abſurdity in its being double or treble or decuple to what it is, for there is abundant room for multitudes of atoms more in the empty ſpaces between thoſe already in being.

10. Neither will there want the like queſtions concerning motion and order: for it will ſcarcely ſatisfy to tell us that every motion

tion and ſituation follows from a prior, that again from the next preceeding, and ſo backwards throughout all eternity; becauſe if we contemplate a ſeries of changes following one another, there will ariſe an order of ſucceſſion as well as of poſition. In the effects we ſee produced, things paſs out of one form, into another through ſeveral intermediate changes: a ſeed cannot produce the full grown tree at once, but firſt ſhoots up a tender twig, which then becomes a ſapling, a waiver, a tellar, and at laſt a perfect oak laden with acorns: a fetus grows through the ſtages of infancy, of childhood, of youth, unto the full maturity of manhood: and theſe gradations in the ſeveral productions of nature may be called their order of ſucceſſion. Now if the ſituations of all the ſubſtances in the univerſe have followed one another for ever, there muſt have been an eternal order of ſucceſſion prevailing throughout: but if it ſhould be aſked why ſome other ſucceſſion might not as well have prevailed eternally, what ſhall we anſwer? for I know of no natural repugnance in things againſt taking any poſition or ſeries of motions, but their changes might have ſucceeded for ever in a manner quite different from that they have done. Beſides there are ſome poſitions which never generate any others,

and

and conſequently produce no order of ſucceſſion at all. Lucretius's atoms falling perpetually downwards with equal velocity could never have changed their order without his whim of a declination, for which there is no foundation either in experience or reaſon. Actual motion is not eſſential to any ſubſtances we know of, which therefore might all have remained eternally quieſcent in their ſeveral ſtations: or if we will needs ſuppoſe them to move, it is moſt natural to conceive them all moving with the ſame velocity and direction, in which caſe they could perform no more feats than the Lucretian atoms. Therefore it remains to ſeek a reaſon for their having an eternal motion rather than an eternal reſt, or for their eſcaping thoſe unavailing ſimilar motions which could produce nothing, and for their having eternally taken different directions, from whence flows that order of ſucceſſion we call the courſe of nature.

11. Another queſtion may ariſe concerning Time, why ſuch a particular point of it muſt be the preſent. To day muſt follow yeſterday and preceed tomorrow, this I know very well, but how know I that yeſterday, today and tomorrow, might not have been long ſince paſt, or that they might not have been yet to come? Can we fix the beginning of eter-

eternity and compute how many ages have lapſed ſince then, ſo that the year 1761 muſt neceſſarily be the preſent year? That year follows year and the ſecond preceeds the third there is no diſpute, but why might not the whole courſe of time have been anticipated or retarded, ſo that it might now have been the reign of Henry I. or George X. inſtead of George III? We ſhall look in vain for a ſolution to this queſtion in the properties of ſubſtances, the effects of motion or the reſults of order.

12. Neither can we learn anything from them to determine the original ſtations of particular ſubſtances in the univerſe whereon all their ſucceeding ones depend, which we ſhall want ſome cauſe to aſſign them. We may think this not worth enquiry with reſpect to matter, for it is all one whether particle A lie in the eaſt and particle B in the weſt or the contrary, the courſe of nature will go on the ſame, for either particle will anſwer the ſame purpoſes in either place: but with reſpect to ſentient Beings it is very material, for had I been ſtationed in ſome diſtant planet and ſome other ſpirit here in my room, though the courſe of nature and buſineſs of mankind would have proceeded juſt as it does, yet my own lot might have been very different: I might have had enjoy-

joyments now out of my reach or faln into diſaſters I now know nothing of. This conſideration may put us upon ſearching for a reaſon, not only why all nature wears the form and follows the order of ſucceſſion it does, but why each particular ſubſtance poſſeſſes its own place in that order and has not the place of any other.

CHAP. VIII.

CHANCE NECESSITY AND DESIGN.

THESE three have been ſeverally aſſigned as the cauſes producing that order we obſerve in nature, and as they convey very different and oppoſite ideas we ſhall conſider each of them apart. Some have laid great ſtreſs upon chance as being the original giving riſe to the other two by ſtrewing the particles of matter throughout infinite ſpace, and throwing them into combinations from whence the ſecondary qualities of compounds neceſſarily reſult, and forming others into an organization rendring them capable of thought and deſign. And in our common diſcourſes we ſpeak of Chance or Fortune as a power

influencing the affairs of men and having a principal ſhare in the direction of all events: this is thought frequently to baſle the ſkill of the wiſe, the valour of the brave and ſtrength of the mighty, to turn the ſcale of victory and determine the ſucceſs of all enterprizes. But if we examine the proper idea of chance we ſhall ſee that it is neither agent nor power nor has any other exiſtence except in our own ignorance, but whatever is aſcribed to that we might ſee performed by other cauſes if we had ſagacity to diſcern them. Even in games at cards and dice we deal the one and throw the other ourſelves, and both fall out according to the motion and poſition we have given them: but as we are not ſo perfect maſters of our motions as to know exactly what they will produce, it is this uncertainty that makes the chance; for there are perſons who have learned to pack the cards and cog the dice, and with ſuch there is no chance what hand or what caſt will enſue. It is remarkable that we ſometimes know the exact proportion between our knowledge and our ignorance, which enables us to calculate chances with a very great nicety: but if there were a perſon who could diſcern minutely the little inequalities of the table you throw upon, the roughneſſes of the box, the vigour of your arm, the degree of confidence or diſtruſt with which

you

you throw, and all the ideas riſing in your fancy, he would make an other guiſed calculation than our common gameſters. Therefore chance is relative, being greater or leſs or none at all according to the degree of knowledge in different perſons: an event of which there is very little chance to one man, may be probable to another and inevitable to a third, according as each ſtands in a ſituation to diſcern the cauſes operating to produce it. To him that ſees two hands at whiſt there is leſs chance on which ſide the odd trick will fall than to the players: if he look over all the cards he may ſtill give a ſhrewder gueſs; and if he knows exactly each perſon's manner of playing he may compute without hazard of a miſtake how much will be ſcored that deal.

2. What is done cannot be undone, therefore a power once executed ceaſes with reſpect to that particular event, wherewith it has no longer any concern: whence we may learn that the power of fortune is only ideal, becauſe in many caſes we ſuppoſe that remaining after determination of the event imagined to depend thereupon. When a merchant riſks his all upon a venture to ſome diſtant part of the globe, we ſay he puts himſelf under the power of fortune, becauſe the caſualties of winds and ſeas, of fire and

enemies, are ſuppoſed to lie at her diſpoſal: but what if this merchant ſells his venture to another after the time lapſed in which the ſhip muſt have ſucceeded or abſolutely failed in her voyage, but before any news of her can be arrived home? does not the purchaſer put himſelf as much under the power of fortune? But if fortune had any power during the voyage ſhe has executed it and has nothing more to do, nor is there any chance of the ſucceſs falling out otherwiſe than it has fallen. Nevertheleſs becauſe we know not the event we ſtill apprehend ourſelves under the power of fortune: for when advice comes of the ſhip being arrived ſafe, the cargo advantageouſly diſpoſed of, and the money depoſited in ſafe hands, then and not before we conceive the power of fortune determined and ourſelves ſecure againſt her caprices.

3. Thus chance is no cauſe of anything, but ſerves only to expreſs our ignorance or uncertainty of the manner in which other cauſes operate; therefore may be properly applied to the moſt cogent neceſſity or moſt deliberate deſign, where we know not the tendency of the one nor purpoſe aimed at by the other. What is eſteemed more caſual than weather? yet nobody doubts of the air moving, the vapours rarefying or the clouds con-

condenſing, according to a certain impulſe received from mechanical cauſes: but becauſe no mathematician nor naturaliſt can inveſtigate thoſe cauſes ſo as to calculate what they will produce, therefore we ſay the farmer depends upon chance to bring his corn to maturity and give him a favourable ſeaſon for harveſting it. So likewiſe to us who are not in the ſecret it may be matter of fair wager whether the council will ſit on ſuch a day, whether they will ſend more troops to Germany or agree to a ceſſation of arms, nor would the chances alter though the whole wiſdom of the nation were to be conſulted in determining theſe points: and if our ſtake were very conſiderable we ſhould as much put ourſelves under the power of fortune as if we had ventured upon the caſt of a die, or a lot drawn by a child, or the choice made between two crumbs of bread by a ſparrow. So then an event happening by chance does not elude the operations of neceſſary cauſes, nor the acts of free agents, nor the proviſions of wiſdom, for the effects of all three will be caſual ſo long as we cannot foreſee them. And though it muſt be acknowledged that fortune has a great influence upon all our affairs, no more is to be underſtood by this expreſſion than that we know not what

cauſes are in act around us which may affect the ſucceſs of our meaſures.

4. It is not uncommon for words to take a little different ſignification according to the phraſes wherein they ſtand: tis one thing to ſay there is a chance of an event falling out ſo or ſo, and another to ſay it was an effect of chance. How ready ſoever you and I might be to lay a wager upon the meeting of the council as deeming it a caſual event, we ſhall never think the members meet together by chance, taking it for granted they have ſome reaſon either for going or ſtaying away. So if we ſee a mathematician buſy in drawing figures upon paper, though we may offer to bet with one another whether he will make a circle, a parabola or a parallelogram next, we ſhall hardly imagine he conſtructs his ſchemes by chance. So likewiſe if lightning falling upon an oak ſhould tear it into ſhatters, tho' it fell by chance upon that particular tree, there was no chance againſt its rending aſunder whatever it ſhould light upon, nor was there any chance of its not burſting from the clouds when the air was in a diſpoſition to produce it. Since then among events we cannot foreſee we diſtinguiſh between thoſe happening by chance and thoſe which do not, it will be proper to examine what we underſtand by this diſtinction. In effects produced

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by neceſſary agents we eſteem thoſe caſual which depend upon other cauſes beſides what fall under our cogniſance: when we ſee water poured upon a riſing ground we know it muſt run downwards by its natural gravitation, but into what ſtreams it may divide or in what meanders it may wind is caſual, becauſe depending upon the inequalities of the ground and obſtacles lying in the way, of which we can take no accurate account; but ſtill there muſt be water poured and gravitation pulling downward or no ſtream or meander could enſue. In works of deſign it is common for other effects to follow beſides thoſe intended: a man walks along meaning only to get from one place to another, but in his paſſing he treads upon a ſnail, this is caſual becauſe he had it not under contemplation nor was it any part of his deſign, but he muſt have had ſome purpoſe in view or he would not have walked at all and the ſnail remained ſafe. So then in both caſes chance has no place unleſs there be ſome agent at work, ſome power in act, from whoſe operations chance may produce ſomething that was unforeſeen or unthought of. Therefore thoſe who pretend the world was made by chance, or aſſign that for the beginning of all things, talk abſurdly; for there muſt always be ſomething in motion previous to

chance, nor can this begin until there be cauſes operating, of which it may be a chance in what manner they will operate. Beſides if we conſider the ſource of chance itſelf we ſhall find it always ariſe from the ſituation of things which may interfere with thoſe at any time under contemplation: for upon ſeeing a body move or knowing the purpoſe of a free agent, there is no chance what will enſue ſuppoſing all obſtructions removed: but we have ſeen in the laſt chapter that every ſituation follows upon a preceeding ſituation, therefore if we could know compleatly the motions, the purpoſes and ſituations, of all ſubſtances in the univerſe, we might learn from thence the order of ſucceſſion and ſhould ſee there is no chance of anything that could happen.

5. I proceed next to Neceſſity, with which I ſhall have leſs to do as being a more ſtable term appropriated chiefly by the ſtudious, and ſo not ſubject to the uſual variations of vulgar language. Our idea of neceſſity we take from the action of bodies, which have no force of their own but tranſmit that they have received from one to another: even reſiſtance, although inherent in body, can effect nothing without an external impulſe. So that neceſſity cannot be aſſigned for the origin of things, becauſe itſelf muſt have a beginning

ginning in the previous condition of things from whence their operations may be neceſſarily inferred, for no effect is neceſſary until there are cauſes at work fitted to produce it: therefore neceſſity is at moſt but a channel of conveyance tranſmitting efficacy from cauſe to effect, and even this purpoſe it will not anſwer compleatly, having no fund to repair the loſs of motion continually occaſioned by the colliſion and preſſure of bodies. We may then admit this as one of the laws by which nature preſerves the tenour of her courſe, but can by no means employ it to account for the preſent order of ſucceſſion, be it eternal or no, taking place preferably to any other, or to thoſe unavailing ſituations which could have produced no ſucceſſion at all.

6. Nor ſhall we find leſs difficulty with Deſign ſuch as we have experience of, for reaſon requires materials to work upon and intelligence cannot ſubſiſt without objects previouſly exiſting to be underſtood. Something muſt ſuggeſt the deſign, and preſent ideas of the means tending thereto before we can enter upon the proſecution. So that what power ſoever ſpirits may have to renew the perpetual decays of motion and carry on the order of ſucceſſion, their action cannot account for there being ſuch an order: becauſe there muſt have been ſome previous ſituation

ſituation of matter before that action begun, exciting perceptions which gave occaſion to their exerting this power.

7. And as we have found theſe three cauſes inſufficient to account for the order of ſucceſſion in the ſituations and motions of things, ſo can they as little account for that third part of nature the primary properties of ſubſtances: for thoſe are not the conſequences of prior properties or poſitions, but co-eval with the ſubjects poſſeſſing them. They cannot ſpring either from neceſſity or deſign, to both which they gave birth: for the neceſſary agency of matter reſults from its ſolidity and inertneſs, as deſign does from the perceptivity of ſpirit; and chance lies ſtill further remote, having no place until neceſſity or deſign have begun their work. Neither will the contemplation of theſe cauſes furniſh us with an anſwer to the queries before propoſed concerning the courſe of time, why it might not have run earlier or later than it does: nor concerning the particular ſtations of ſentient Beings, why each poſſeſſes the place it holds among the whole number, and ſo receives that ſeries of perceptions which might as well have fallen upon another ſtanding in its room.

CHAP.

CHAP. IX.

THE FIRST CAUSE.

THUS having examined all the powers and properties of nature, ſo far as they fall under our cognizance and obſervation, we find that the contextures, qualities and operations of particular things, follow from prior ſituations and motions, theſe again upon others preceeding, and ſo on without limitation in a continued chain, whoſe links we cannot number and whoſe length we cannot meaſure. When we endeavour to account for the whole chain, whether finite or infinite, hanging in ſuch a particular manner rather than any other, or being connected in links at all, and conſider the general cauſes hitherto aſſigned for that purpoſe, we find them ineffectual, as taking their riſe from the poſitions and qualities of ſubſtances ~~before~~ before exiſting, and therefore themſelves the effects of ſome preceeding cauſe. When we reflect on the different primary properties of ſubſtances, which are eſſential to them and inſeparable from them and yet require a reaſon occaſioning the difference, we muſt conclude that the cauſe, which made that difference, gave

gave them likewiſe their exiſtence and at the ſame time appointed them their ſeveral ſtations; for theſe too require a cauſe, every ſtation being naturally indifferent to receive any particular ſubſtance equally with any other, and each ſubſtance having had ſome ſtation in every point of its exiſtence. But this cauſe we have no direct knowledge of as we ſee none of its operations; wherever we look around us we diſcern nothing at work beſides chance, neceſſity and volition: neither our ſenſes nor our thoughts can pierce to the end of the chain, nor can we contain the whole of it in our imagination: we have no remembrance nor experience of an exiſtence given together with primary qualities, nor of a ſubſtance which had no place in nature firſt taking its ſtation. From whence we may rationally infer that all the cauſes operating to produce the phenomena within our notice are themſelves effects of ſome prior cauſe, of which we can know nothing more than may be gathered upon the evidence of thoſe effects.

2. There is not a more evident truth or more univerſally acknowledged among mankind than this, That nothing can produce nothing: therefore if there ever had been a time when there was no Being in nature there could have been none now, and the bodies we

we daily ſee and handle are an irrefragable evidence to us that ſomething has exiſted from all eternity; becauſe either they themſelves did ſo or they were called into being by what was exiſtent before them and had nothing prior to itſelf. Thus we muſt needs acknowledge there is a Being ſomewhere exiſtent without a cauſe, for till we find ſuch a one we ſhall have no cauſe whereon to found the exiſtence of other things: and ſuch we may ſafely aſſign for the Firſt Cauſe of all exiſtencies, modes of exiſtence, properties and order of ſucceſſion in the univerſe. To this ſpecies of exiſtence we commonly apply the terms Self exiſtence and Neceſſary exiſtence, rather for want of properer than for their being fully expreſſive of the thing underſtood by them: for ſelf exiſtence literally implies ſomething that was not but aſſumed a being by its own power, than which no imagination can well be more abſurd: but we mean by the expreſſion a Being underived and unproduced either by itſelf or any other, or in other words, exiſting perpetually without a cauſe. I will not undertake to expound the term Neceſſary, having but a confuſed idea of the import it carries in this place: it cannot mean a Being that has no power to lay down its exiſtence: for in this ſence you and I, the dog and the chimney piece, are neceſſary

ceſſary beings becauſe we can none of us annihilate ourſelves or ceaſe to be: but Neceſſary I take it ſtands here in oppoſition to Eventual, as not depending upon the concurrence or operation of other cauſes, and ſo amounts to the ſame as I ſaid before, a Being perpetually exiſting without a cauſe.

Nevertheleſs we have obſerved formerly that one may pronounce ſome things clearly concerning confuſed ideas: therefore how obſcure ſoever the term may be we may affirm without heſitation that it cannot be local nor temporary, for we cannot conceive ſuch a difference in places or times as that a Being ſhould be neceſſary in one ſpot or year which is not neceſſary, elſewhere or other when. Therefore bodies are not neceſſarily exiſtent becauſe we ſee that any place may be without them, but if there were an abſolute neceſſity independent on any cauſe that yonder rolling ſtone ſhould exiſt where it is, it could never be removed therefrom: and the ſame neceſſity would require its exiſtence in the next adjoining place, and ſo in every other until the whole univerſe became one enormous maſs of ſtone. For whatever has neceſſary exiſtence at any time or any where muſt have it always and every where throughout the whole extent of time and ſpace.

3. But

3. But though the exiſtence of the Firſt Cauſe be neceſſary its operations are not ſo, for neceſſity always proceeds uniformly under the ſame circumſtances: wherefore the variations of nature may convince us that there is a choice belonging to the Firſt Cauſe determining the preciſe number of ſubſtances, allotting them their primary properties, ſtations and motions, aſſigning their poſitions with reſpect to one another, and ſo aſcertaining the particular order of ſucceſſion which conſtitutes the courſe of nature. For we cannot conceive otherwiſe of Non-exiſtence than as alike indifferent to take Being or remain in non-entity or to receive any properties and modifications that ſhall be given it: nor of the Firſt Cauſe otherwiſe than as proceeding by choice determining where and in what manner they ſhall be given. This choice we muſt call Intelligence for want of a properer appellation, though very different from our own underſtandings which how improved ſoever could never act as a firſt cauſe, becauſe they do nothing without previous motives and ideas derived elſewhere: and from this Choice or Intelligence the Firſt Cauſe is denominated God. For I take the point of intelligence to make the fundamental diſtinction between theiſts and atheiſts: all who hold the world

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and the affairs of men governed by a ſuperiour wiſdom and foreſight, whether they conceive it reſiding in one or in many, whether limited in their powers and preſcribed to by the laws of nature, or even if they ſuppoſe them generated and periſhable, muſt be allowed to believe a God. On the contrary how highly ſoever any may think of the eternity, ſelf exiſtence and efficacy of their firſt mover, yet while they aſcribe its operations to unthinking chance or blind neceſſity they cannot eſcape the charge of atheiſm.

4. Beſides it ſeems incongruous to reaſon to imagine that any cauſe ſhould give active powers unleſs it has the ſame or greater within itſelf. A man indeed may beget a ſon that ſhall far outſtrip him in underſtanding and quickneſs of parts, but then there are many other cauſes concurring to the production of a child beſides the father; but that a ſole cauſe working on no pre-exiſting materials ſhould do this, is inconceivable. Since then we find a degree of intelligence, prudence and forecaſt in ourſelves, we can with no colour deny the ſame to the origin from whence we ſprung. He that made the eye, ſhall not he ſee? he that formed the ear, ſhall not he hear? and he that gave man knowledge, ſhall not he underſtand? Our own perceptions indeed come to us from without

without, but we may consider perception in the mind as a different thing from the modifications of our organs immediately exciting it: we may then conceive the like and other perceptions in God without the adventitious helps we stand in need of to strike them upon us; or if he have not perceptions of the same kind with ours, we must suppose him to have something else which answers the purposes of them more effectually.

5. Nor is it a contemptible argument for the Being of a God which is drawn from the universal consent of mankind: for our reason when proceeding most carefully being liable to error, we gain a greater confidence in it upon finding it confirmed by the opinion of others, and the more general this confirmation is, the stronger assurance we shall have of our being in the right. But the force of this argument has been invalidated by alledging that far the greater part of mankind take their opinions upon trust, and that crafty persons have found an interest in leading the world into the persuasion of a superiour power they did not believe themselves. Therefore to avoid this objection let us consider the sentiments of those only who have been most carefull to judge for themselves, and we shall find them agreed in the course of their reasonings, but some few led to dissent from the

reſt by their miſapprehenſion of a point of fact which I conceive may be determined by our experience and obſervation. The atheiſts I believe to a man were all corporealiſts, holding no other ſubſtance in nature beſides matter: and though they could not but acknowledge a ſence and underſtanding in themſelves which was wanting in the ſtones and clods of the earth and the moſt curious works of art, yet they ſuppoſed thoſe to be ſecondary qualities reſulting from an organization wherein the particles of matter were diſpoſed. The Hylozoiſts indeed, by Cudworth's account of them, aſcribed a little more to their atoms, imagining them endued with a quality which, though not perception, might be ſtiled the ſeed or principle whereout by the junction of many of them together perception might be compleated. Thus both conceived perceptivity to ariſe from a certain combination or aggregation of imperceptive particles, and that there was nothing exiſtent which was not originally and ſeparately imperceptive, that is, corporeal.

On the other hand none who admitted perceptivity as a primary property or held immaterial ſubſtances uncompounded of matter, ever denied a God. And it may be remarked for the credit of the ſpiritualiſts that they were more unanimous upon this arti-

article than the materialists: for though the stoics according to Cudworth must be ranked among the latter, they were so far from atheism that they run into the contrary extreme and all the superstition of dreams, omens, auguries, with other methods of divination: and indeed if a composition of meer matter consisting of flesh, blood and fibres, may form sence and understanding in man, it will be hard to show that other compositions may not do the like, or that the order and composition of all matter which we call the Universe may not as well produce a superiour intelligence. So Bolinbroke, whom, from his deriding the doctrine of spiritual substance under the name of the pneumatic philosophy, we may pronounce a corporealist, nevertheless acknowledges a God: for catching hold of Mr. Locke's notion he would have us believe that God has annexed the faculty of thinking to that system of matter composing our human frame, so that upon the dissolution of our system we must lose our faculties, our existence and our personality. But the spiritualists, however varying in other respects, have never disputed the being of a God: some few of them, as Berkeley, have denied the existence of body, the reality of space, distance, time and all external objects, but then they attributed our perceptions to an im-

mediate act of God impreſſing ideas of them all upon our minds. Thus we ſee the matter reduced to this ſingle queſtion, whether perceptivity reſults from a combination of matter or is a primary property in the ſubject poſſeſſing it: for which reaſon I have been the more carefull in the foregoing chapters to ſuggeſt what obſervations I could think of for ſhowing our diſtinct exiſtence, individuality and perſonality, together with the difference of primary properties between ſpirit and body: for theſe facts once well eſtabliſhed we ſhall have the unanimous conſent of all ſerious and thinking perſons to conclude from thence that there is an intelligent cauſe of all theſe things. Beſides, if there were nothing but matter there could ~~be~~ be no more activity than perception, for all exerciſes of activity contain ſomething of motion, but ſuppoſing matter to have a power of moving, yet being indifferent to take any direction and utterly deſtitute of choice, it muſt exert that power every way alike, which conſequently muſt deſtroy its own operations. A body in this caſe would be like an iron plate tied by many ſtrings drawn extremely tight to all ſides of the wainſcot, which muſt hang motionleſs in the air although continually pulled with a mighty force, each oppoſite ſtring counteracting its antagoniſt, unleſs you ſuddenly cut

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the ſtrings on one ſide when it would fly violently towards the other where they remained whole. But matter thus propelled to all quarters by its inherent power would want a preference to cut off its impulſe on all parts except one in order to produce a motion that way. Add further that what has been offered concerning the ſtationing of ſubſtances, the appunctuation of time and perpetual order of ſucceſſion, might ſerve to confirm the ſame concluſion if it ſtood in need of a confirmation.

6. There are people who puzzle themſelves with nice ſpeculations concerning ſpace, which they will needs have to be neceſſary becauſe we cannot conceive it non-exiſtent, nor any portion of it removed, nor other ſubſtances to exiſt without a place to contain them. But howmuchſoever we may ſuppoſe ſpace neceſſary, it does not affect the foregoing argument for an active intelligent cauſe, for ſpace underſtands nothing, does nothing, and produces nothing, but is perhaps the moſt unmanageable idea in our imagination: the moſt ſagacious of us know not whether it be ſubſtance or accident, whether finite or infinite, whether one continued thing or conſiſting of parts, nor whether thoſe parts be determinate points or infinitely diviſible; for ſuppoſe a particle in the circumference of a

large wheel to move only from one point to the next, what must the particles lying near the center do? for they all move at the same time, but they cannot move a quarter, nor a tenth, nor a hundredth of a point. The like difficulties might as well be started upon time, wherefore we cannot conceive an utter absence, nor can the future be made to precede the past, nor can any substances nor even space exist without a present moment for them to exist in. But time was never yet suspected of being a substance, and though we talk of its producing great events, this is only a figurative expression denoting that it gives scope for other agents to work in. Wherefore these speculations concerning space and time make no advancement in our knowledge but only serve to convince us of the imperfection of our faculties, which cannot fully comprehend the nature of every thing whereof they can entertain ideas: nor do those who employ them pretend to draw any certain conclusions from them, but only throw them out as a rub in the way of their adversaries. I never heard of any who were converted to atheism by contemplating the necessary existence of space, but being first prepossessed against the admission of one active, intelligent and self-existent cause, they endeavour to perplex the question by suggesting

ing another Being alike self-existent and necessary: so that this is an after thought not weighing with them in their determination, but used only, in the schoolmen's phrase, as an argument to the man. We discern neither time nor space by our senses, they being ideas of reflection gathered from the situation of objects and the successive changes observable in them. We find the idea of both necessary to the existence of substances, and if we suppose those substances annihilated, still the idea of that space and time wherein they might have existed remains: if we go to imagine those again annihilated, it will amount to the supposition of a place wherein there is no place and a time wherein there is no time, which is contradictory: but this depends upon our conception which cannot penetrate so thoroughly into substances but that they may exist in a manner we cannot conceive. We have seen that time requires a cause to determine what particular point of it shall be the present: and if space be anything real or more than a mode of existence in other things, it likewise requires a cause to assign it properties distinct from those of body and spirit. Nor should I be singular if I were to suppose both time and space receiving their reality from the First Cause, but having so firm an establishment given them that we can

neither by experience diſcern nor in imagination conceive their non-exiſtence.

CHAP. X.

INCOMPREHENSIBILITY.

PERHAPS there has been no tranſaction throughout all hiſtory more frequently quoted in theological treatiſes than the converſation of Simonides with king Hiero, who deſiring him to explain what God was, Simonides aſked a day to conſider of it; at the end of this day inſtead of giving his anſwer he aſked for two more, and when theſe were expired he requeſted four; for, ſays he, the more I conſider the ſubject I find the difficulties double upon me. This anſwer of his being ſo frequently taken notice of, ſhows how well it tallies with the ſentiments of all who have turned their thoughts upon the like contemplation. Nor is there any wonder that it ſhould, for we knowing nothing of cauſes unleſs by their effects, ſeeing none of the immediate operations of the Firſt Cauſe, and being confined to a narrow corner of nature, cannot expect to have a full comprehenſion of the author of nature, from whom flow many other effects beſides thoſe falling within the reach of our obſervation.

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We have juſt now ſeen inſuperable difficulties in the contemplation of time and ſpace, we have before met with the like in the diviſibility of matter, the propagation of force from body to body, and have found myſteries in the action of our own minds, which muſt proceed always upon motives and ideas and yet we have no idea of thoſe fibres or other parts of our organization which are the immediate ſubject of our action. Since then we lie involved in obſcurity with reſpect to our very ſelves and the objects moſt nearly ſurrounding us, how can we attain a perfect knowledge of that cauſe concerning which we know nothing more than can be gathered from thoſe materials? The very idea of a Firſt Cauſe is unſuitable to our imagination, for we ſee all things proceed in a chain wherein there is nothing firſt, each cauſe being likewiſe an effect of others preceeding. Nor can we, who are confined to certain meaſures in our conceptions, comprehend that wherein every thing is infinite as having nothing external to limit it. But ſince our ideas and our language are taken from objects familiar to our experience, it is unavoidable that we muſt think and ſpeak very imperfectly of God: the terms we employ are for the moſt part figurative, containing ſome remote ſimilitude but not fully expreſſive of the thing we would ſignify. 2. We

2. We hear it currently aſſerted that God is a ſpirit, nor do I find fault with the appellation as having no properer to ſubſtitute in its room: for we know of no more than two ſubſtances, Matter and Spirit, therefore ſince we are ſure he is not matter nor contains any material mixture we can call him no otherwiſe than ſpirit. But we cannot ſuppoſe this an adequate term, for we may diſcover ſo much of him as to ſhow that he is as different from the ſpirits of men as they are from matter. We know that our own ſpirits are moveable and paſſive, reſiding in ſome particular ſtation and confined to objects touching the ſphere of our preſence, receiving an impulſe from that matter whereto we are vitally united transferring us from place to place, neceſſarily affected with pleaſure, pain and other perceptions by the various play of our organs, extremely ſcanty in our knowledge, liable to error and deluſion, and never exerting our activity without ideas to inſtigate and direct us: none of which particulars can be aſcribed to God, whom we muſt therefore ackowledge a Being of his own kind not to be ranked in the ſame claſs with any others.

3. So likewiſe when we declared God intelligent, it was becauſe we had no other word to expreſs our meaning by, for if we had

had declared him non-intelligent, it would have conveyed the ſame idea we have of ſenceleſs matter, acting neceſſarily by tranſmiſſion of impulſe and therefore by no means capable of being a firſt cauſe. He that made the eye, ſhall not he ſee? and he that formed the ear, ſhall not he hear? but thoſe who propounded theſe queſtions never intended to repreſent God as provided with optic and auditory nerves or receiving ſound and viſion in the manner we do. So likewiſe if we go on to aſk, he that gave man knowledge ſhall not he underſtand? neither does it follow that underſtanding is the ſame in him as it is in us: for the thoughts of God are not as our thoughts, nor his ways like our ways. We underſtand by organs of ſenſation and reflection, by traces lying in our memory, and ſlow deductions of reaſon: nor could we underſtand anything unleſs there were ſomething exteriour to be underſtood; or howmuchſoever we may fancy ourſelves containing our ſtores of knowledge within ourſelves, they were firſt depoſited there by objects ſtriking upon us from without. Divines tell us that God is a pure act, by which I ſuppoſe they mean that his acts contain no mixture of paſſion nor require materials or inſtruments to make them take effect, as ours do; for we cannot act without organs

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of motion nor ſubjects to receive our action nor ideas to determine our volition: but in creation God acted upon Nothing, without inſtruments to aſſiſt or objects to direct him in the execution. I muſt own this pure agency is to me an inexplicable idea, yet is this no reaſon for rejecting it: for we have found upon a carefull ſurvey of nature that all ſubſtances, and operations conceivable require a cauſe to aſſign their ſeveral ſtations, properties and directions, but this cauſe muſt neceſſarily be inconceivable; for elſe there could be ſomething conceivable that did not require a cauſe, which is contrary to the reſult of our ſurvey taken from experience and reaſon, the only two ſources from whence we can derive any knowledge.

4. Nor was it ever controverted among theiſts that God is incomprehenſible, being of a nature peculiar to himſelf and different in ſpecies from all other ſubſtances. It has been ſaid that man was made after the likeneſs of God, but this likeneſs prevails no otherwiſe than our being leſs diſſimilar than the ſtocks and ſtones we toſs about; juſt as the top of a mole hill is nearer the ſun than the bottom, and therefore reſembles that glorious luminary in being raiſed above the ſurface of the earth: for we cannot imagine but that the faculties and operations of man differ

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in kind as well as degree from thoſe of his Maker. Perhaps it might be ſaid with more ſtrictneſs of truth that the idea of God is taken from the likeneſs of man, for our conceptions being all derived from ourſelves and the objects affecting us, we can form none other than what is made up of materials furniſhed us by our experience and our reflection. Therefore we ſelect whatever powers and endowments we can find among ourſelves, ſeparating from them all we deem a weakneſs and imperfection, and heightening them to the utmoſt pitch imagination can reach, the aggregate of all theſe makes our idea of God: whoſe image 'tis no wonder we reſemble, the features of it being formed from archetypes in our own mind: nor are we without excuſe in taking this method as being the only one in our power to take. But a ſimilitude employed from meer neceſſity will not juſtify us in purſuing it too far, nor drawing the concluſions we might do if we had a clear and perfect knowledge of the ſubject. Wherefore I can ſee nothing in the doctrine of likeneſs warranting thoſe high flown expreſſions uſed by ſome, that the ſoul of man is a ray and emanation of the Divinity, and that God has communicated ſome ſparks of his own perfections to us, or that the divine intelligence is no more than perfect

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fect reaſon, proceeding in the ſame manner with ours but having a larger field of premiſes to work upon.

5. From this inability to apprehend the divine Being any otherwiſe than by ideas taken from ourſelves it follows that our conception of him muſt be very imperfect, and what is worſe, frequently erroneous: for we are not always competent judges of what is power or weakneſs but often miſtake the latter for the former, which induces us to aſcribe our own paſſions, frailties and imperfections, to God under the notion of excellencies. And this may plead ſome excuſe in extenuation for the atheiſts, for perhaps the deſcription, which any man would give of the Supreme Being, might be demonſtrated in ſome parts of it impoſſible and inconſiſtent: beſides that the ideas ſometimes inculcated by deſigning perſons for their private ends and thoſe entertained by the vulgar are manifeſtly abſurd. But it is no rule that a thing may not be true becauſe ſome on purpoſe, and others by miſtake, have blended it with a mixture of falſehood: wherefore it would become ſuch as profeſs a freedom of thought and due exerciſe of their reaſon, to examine whether everything ſuggeſted concerning a Deity be without foundation; for there is no reaſon to reject the whole of an opi-

opinion becauſe the frailty of man has grafted ſome inconſiſtencies upon it.

6. For how incomprehenſible ſoever the divine nature may be, there are ſome propoſitions we may affirm with certainty concerning it: nobody can doubt that the power of God is the ſame in America as in Europe, the ſame yeſterday and tomorrow as to day, that he was not born of parents, is not nouriſhed by food, nor ſhall grow old and decay like ourſelves; that all created ſubſtances take their ſtations, from whence fortune ariſes, by his appointment; that the order of ſucceſſion, which is the courſe of nature, proceeds according to his direction; with many other the like aſſertions which need only the propoſing to be aſſented to. Let us then endeavour to collect what we can diſcover clearly concerning the divine nature from ſuch obſervations as we are able to make upon the things about us upon the beſt exerciſe of our reaſon, which though ſmall in quantity may prove ſufficient for us to draw any inferences therefrom that we may want to regulate our preſent conduct or aſcertain our future expectations; leaving all unavailing ſpeculations for the amuſement of thoſe who may want ſomething better to employ their leiſure.

CHAP.

CHAP. XI.

UNITY.

THERE will be little room to expatiate upon this article it being too clear to admit of a proof: for it ſeems a ſelf-evident propoſition that the Firſt cauſe muſt be One, becauſe if there were more they would want ſome prior cauſe to aſſign them their ſeveral ſtations and properties. And indeed this point with reſpect to the active cauſe has never been doubted of, unleſs by Zoroaſter and the Magi together with their followers the Manicheans: for the heathen polytheiſm was no exception, their gods being no more than celeſtial men with a little larger powers than thoſe upon earth but limited in their provinces, confined in their operations, and ſubject to the infirmities and diſappointments of men. Beſides this was only a popular perſuaſion never gaining credit among the ſtudious.

2. We hear the Stoics ſpeaking of the ſun, the moon and the ſtars as ſo many gods, but then they did not underſtand the term in the ſame ſence as we do now, for they held them to be animals having a ſuperiour intelligence

ligence to man and moving in their courſes by their own energy, but created Beings ſubordinate to the ſupreme God, the governor of all things, whom they ſuppoſed to be the Univerſe. How they could imagine God a compound conſiſting of ſo many parts as there are ſubſtances in the world, which is making many to be one, we need not now enquire: for whatever notions they held inconſiſtent with unity, they did not ſee the inconſiſtency, and therefore we cannot deny them orthodox upon this article.

3. Some of the ancients aſſigned two cauſes concurring to the production of all things; Thales, Mind and Water; Anaximenes, Mind and Fire; the Stoics, God and Matter, to which they might as well have joined Space and Time if they had thought of them: but then they held their active principle to be One, and the others purely paſſive to take ſuch forms as ſhould be impreſſed upon them. Plato and the Pythagoricians aſſerted the eternity of ideas and forms, the former of which ſerved the Deity for a plan guiding him in his works, and the latter to conſtitute the eſſences of things by being applied to Subſtance, of which they ſeem to have had a more confuſed idea than Mr. Locke or myſelf, for one knows not whether they conceived it as having an exiſtence of its own,

or receiving it from time to time upon the application of form. Our modern free-thinkers talk confidently of a nature of things, eternal and unalterable, controuling the Deity ſo that he cannot do this or tother but as that ſhall permit him. I wiſh they would explain what we are to underſtand by this nature of things with which they ſeem to be ſo well acquainted as to tell us preciſely what it will require upon every occaſion: by their manner of ſpeaking they ſeem to make it another cauſe independent on the Firſt; or rather make the Firſt Cauſe dependent upon this for the meaſures it ſhall take; for they ſay God would be more beneficent and mercifull than he is, delivering us from our vices with the miſeries conſequent upon them, but the nature of things will not let him. How they would avoid the imputation of two Firſt Cauſes I know not, for they deal altogether in objections and are wiſely cautious never to give us a compleat creed of their own leaſt there ſhould appear more holes in it than they can pick in any other. But the ancients, holding the eternity of forms and ideas, ſuppoſed them ſubſiſtencies inexiſting within the divine Mind: what is the proper import of Inexiſting or the diſtinction between a Subſiſtence and a Subſtance I ſhall not pretend to explain having

having no clear apprehenſion of it myſelf; but I think the invention of theſe terms ſhow that thoſe who employed them found it agreable to their reaſon that there ſhould be nothing external to the Supreme Being which was not produced by his own power, and conſequently that the Firſt Cauſe ſhould be one ſole and ſimple ſubſtance.

4. The difficulty of imagining good and evil to proceed from the ſame cauſe induced the Magi to ſuppoſe two principles, one to be the ſource of either: but then greater difficulties will ariſe upon ſuch a ſuppoſition. For the primary properties of ſubſtances muſt be given them together with their exiſtence, nor can we conceive ſuch a property ſuperadded to what it had not in its nature before: now the capacity of receiving pleaſure or pain, ſatisfaction or uneaſineſs in ſpirits is the foundation of all the good and evil befalling them, and had they not been endued with ſuch capacity there could have been neither, but had they been rendered capable of uneaſineſs only there could have been no good, or of ſatisfaction only there could have been no ſuch thing as evil in the univerſe. But we cannot ſuppoſe two oppoſite principles ſhould concur in one operation, nor, could they agree ſo far, is it conceivable creation ſhould be the joint work of ſeveral agents. I know that

many workmen may join in the productions of art, for theſe being made up of pre-exiſtent materials and compleated by piece-meal, each may take in hand ſome of the ſeveral parts while others work upon the reſt; but creation is a ſingle act, inſtantaneous and admitting no gradations, ſo that were there a hundred creative powers the primary qualities of each particular ſubſtance muſt proceed from the ſame cauſe and be received at the ſame time with its exiſtence. Nor did the Magi themſelves imagine otherwiſe, for they attributed the creation of ſentient Beings to Oromaſdes, who made them capable of happineſs, wherein they would have continued without intermiſſion unleſs Arimanius had introduced diſorders and miſchiefs among them. But his malicious purpoſes could have taken no effect upon Beings that had not likewiſe been capable of miſery. So then the difficulty remains entire as before, becauſe the good principle muſt have furniſhed his antagoniſt with fitting ſubjects to wreak his malice upon, and concurred in the production of evil by giving his creatures a capacity of ſuffering by it. I dont know whether this argument againſt the duality of principles has been employed before, nor was there any need of it; for the abſurdity of two firſt cauſes, which ~~might~~ must require another prior

prior firſt to determine the difference of properties and extent of powers between them, was ſo glaring that it has quite exploded that notion off the ſtage: nor are there any now carrying their thoughts ſo high as to a firſt cauſe, but what are ſatisfied of its individuality and unity.

5. But our knowledge of the Being and unity of God will avail us little unleſs we can gather ſomething concerning what he is. Now the knowing what any ſubſtance is implies our knowing the qualities belonging thereto, its manner of exiſtence and particularly whether it may ſtand ſo circumſtanced as to affect ourſelves, for elſe all the reſt would terminate in meer ſpeculation. But qualities and modes of exiſtence, when applied to God, are termed attributes: theſe then I ſhall endeavour to inveſtigate ſo far as I can find a ſolid foundation in the phenomena of nature and cleareſt deductions of reaſon. For I do not pretend to give an exact deſcription of what is incomprehenſible, nor do I deſign to purſue my enquiries further than my own line of conception ſhall reach, leaving all beyond with an acknowledgement of my ignorance: neither would I proceed upon a fondneſs to gratify my curioſity, but with a ſober and earneſt deſire of ſo much underſtanding

in the divine attributes as it may concern myſelf and my fellow creatures to attain.

CHAP. XII.

OMNIPRESENCE.

LITTLE need be ſaid in ſupport of this attribute which is inſeparable from the idea of neceſſary exiſtence: becauſe, as we have remarked before, there can be no ſuch difference in places as that what is neceſſary in one ſpot ſhould not be ſo elſewhere. And this holds good as well with reſpect to a particular ſubſtance as to a ſpecies: therefore there cannot be many neceſſary ſubſtances though of the ſame ſpecies, becauſe each being abſent from the places occupied by the others, there is no other neceſſity for their being where they are unleſs what is brought upon them by a ſuperiour cauſe aſſigning them their ſeveral ſtations. Therefore whatever has neceſſary exiſtence anywhere muſt be One in number as well as in kind and exiſt alike everywhere throughout all the immenſity

ſity of ſpace. Nor is there any variance of opinion upon this article, all who acknowledge a God, the cauſe and fountain of all things, believe him to be one pure, undivided, unbounded ſubſtance, pervading, containing and co-exiſting with all the things he has created.

2. It muſt be owned this is an incomprehenſible idea too large for our imaginations to graſp, therefore no wonder we find difficulties in it: but theſe ariſe all from our narrowneſs of conception and not from any ſhadow of poſitive proof that can be produced againſt it. For no man ever attempted to ſhow the limits that might circumſcribe the divine eſſence, or point the place from whence it might be abſent. But it is hard for us to reconcile omnipreſence with individuality, becauſe all the ſubſtances falling under our cognizance having a locality, we cannot conceive the ſame thing preſent at immeaſurable diſtances unleſs ſucceſſively by removing from one place to another. Large bodies we can apprehend taking up a large compaſs of ſpace, but then the ſeveral parts of them occupy their ſeveral points; and body being the only object familiar to our ſenſes we take our idea of occupancy from that. Wherefore ſome I have met with object, not as an argument overthrowing omnipreſence, but as

a difficulty wanting ſolution, that we ſeem to make God extended and conſequently conſiſting of parts, becauſe it is the acceſſion of parts that extends everything we know of into magnitude. But how are they aſſured there can be no extenſion unleſs by means of parts? even in matter we have already found infinite diviſibility ſo inconceivable, and the difficulties on either ſide ſo much wanting a ſolution, that the moſt ſober and judicious perſons have foreborn to decide peremptorily upon it: and in our own ſpirits we have found an extenſion of another kind, for our ſence aſſures us of our individuality, and daily experience furniſhes us with reaſons which to me carry the force of demonſtration evincing a ſphere of preſence, in every part whereof we are actually exiſtent and perceptive becauſe receiving ſenſations from a variety of objects at the ſame time: but neither can the ſame particle of matter conveying our ſenſation take various modifications at once, nor can many particles act together upon a mathematical point. And this experience of our own undivided extenſion may a little help our comprehenſion of omnipreſence, for though we cannot make a new idea we may compound and enlarge thoſe we have in ſtore. Our own manner of exiſtence in a ſphere or portion of ſpace ſufficient to receive the action

tion of many corporeal particles, we may term a totipreſence throughout the contents of that ſphere; we may then conceive another ſubſtance totipreſent in a ſphere of an inch, an ell, a rod, a mile, and ſo riſe by degrees to the greateſt extent we are able to contain in our imagination; and a totipreſence throughout all immenſity amounts to the ſame as omnipreſence.

3. But we are unable with our utmoſt efforts to conceive an immenſity of ſpace, much leſs omnipreſence wherein that idea is contained, nevertheleſs what we cannot apprehend at once or in the groſs we may by piecemeal: whatever portion of ſpace we fix our thoughts upon at any time we may conceive God to be there, and thus ſoar from height to height with a denial of his abſence from every point in the progreſs of our contemplation. And this method has been recommended of old: Whither ſhall I go from thy ſpirit, or whither ſhall I flee from thy preſence? If I go up into heaven, thou art there: if I make my bed in the grave, behold thou art there. If I take the wings of the morning and dwell in the uttermoſt parts of the ſea; even there ſhall thy hand lead me and thy right hand ſhall hold me. To which we may add from ideas ſuggeſted by modern diſcoveries; If I follow the planets

nets in their orbits, I ſhall find thee directing their courſes: if I enter the aſſembly of fixed ſtars, there art thou holding them in their ſtations: if I penetrate the minute fibres of vegetables or examine the little corpuſcules of air and ether, there art thou alſo marſhalling their order and invigorating their motions. Thus though we cannot comprehend God abſolutely every where, we may comprehend him wherever we can think of: this is an idea eaſy to our imagination, involving us in no perplexities of an extenſion without parts, and this we may ſatisfy ourſelves with as being enough to anſwer all our uſefull purpoſes.

CHAP. XIII.

ETERNITY.

NO proof ſeems requiſite to eſtabliſh this point, it being ſelf-evident that ſomething muſt always have exiſted, and what can that be beſides the Firſt Cauſe from whom all things elſe received their being? Nor can we find a difference in times any more than places with reſpect to neceſſary exiſtence, but what

what was once and anywhere neceſſarily exiſting muſt be ſo always as well as every where. And the ſame rule extends to the attributes as well as the exiſtence of God: for if there were a time when he was without any of them I know not where he could have acquired them or from what ſources derived them. Therefore eternity infers immutability nor was ever ſeparated from it in the minds of men: for all who believe a God, believe not only that he always was, but likewiſe that he continues without variation or ſhadow of change the ſame yeſterday, to day and for ever.

2. I know not how we can conceive otherwiſe of eternity than as a ſucceſſion of time with a negation of beginning or end. But the ſchoolmen are not ſatisfied with this idea, for they look upon ſucceſſion as a continual periſhing and renewing of things exiſting in that manner: for I am not and perceive not yeſterday, the exiſtence and perceptions I had then being loſt and gone and thoſe I have now being new ones, ſuch as I had not then but are brought me by lapſe of time, yet my yeſterday's exiſtence was the cauſe of my preſent, for if I had not been then I ſhould not have been now: which manner of exiſting they think unworthy to be aſcribed to God, as wanting that ſtability and independency on prior

prior time ſuitable to our idea of a neceſſary Being. Wherefore they ſuppoſed eternity a ſtanding point with God or a perpetual Now, ſo that all paſt and future ages are as actually preſent before him as this inſtant moment is with us. And we hear divines ſtill talking in the ſame ſtrain of an eternity before all time, or when time was not, or when it ſhall be no more, and aſſerting poſitively that the paſt is not gone nor the future yet to come with reſpect to God. Perhaps they pronounce too confidently upon a matter whereto the human faculties cannot reach, for if we purſue our abſtractions to the utmoſt either upon time or ſpace I fear we ſhall find them both unmanageable ſubjects concerning which we can determine nothing with certainty. Nevertheleſs they would not want foundation for what they ſay if they would deliver themſelves a little more reſervedly, and give it only as the more probable opinion that the efflux and ſucceſſion of time is owing to the power and Will of God and therefore may take place only among his creatures.

3. We have already remarked there is no viſible repugnancy againſt ſuppoſing the courſe of time might have been accelerated or retarded: I do not mean that twenty years might have paſſed in ten or taken up forty to run them out, for this were a contradiction,

but

but that the whole order of them might have been removed higher or lower, ſo that the Auguſtan age or that of our remote deſcendants might have been the preſent. In which caſe the efflux of time would require ſome cauſe to fix it where it is: and therefore muſt depend upon the Will of God to determine that no more or no leſs of it ſhould be expired. Nor are there no grounds to ſuſpect that even with ourſelves the preſent moment may contain an interval of time though extremely ſhort, for elſe how ſhould we get the idea of time at all? Mr. Locke ſays we get it by obſerving a ſucceſſion of ideas, and this way I can readily allow that we come by the meaſures of minutes, hours, days and years, which we uſe in computation: but ſucceſſion implies a previous idea of firſt and laſt before it can be attained, for a variety of ideas afford us no notion of ſucceſſion unleſs we perceive one come before the other; nor can it be imagined that their degrees of vividneſs or faintneſs will do the ~~job~~ buſineſs, for let a man ſtand with a candle in his hand between two looking glaſſes, he will ſee a number of flames in the glaſs before him each fainter than the others, yet the whole ſcene will appear quieſcent nor exhibit any idea of ſucceſſion. And the ideas of things in our remembrance, though fainter as more remote

remote would do the like unleſs we had another idea of preceedence annexed to them. So then our idea of preceedence ſeems to be an original, not derived from any other but gotten by our manner of exiſtence extending to a length of time wherein there is a firſt and a laſt.

4. And I may offer to the conſideration of the curious whether this does not ſtand confirmed by the evidence of our ſenſes in their diſcernment of motion, of which they have an immediate ſenſation in ſome velocities but not in others. For you may ſee the motion of a ſtone thrown acroſs you very plainly, but you cannot ſee that in the ſhort hand of your watch. If indeed you look at it again an hour after, you will ſee that it has moved, becauſe finding it in a different place from where it was before: but this is a logical inference gathered from the joint teſtimony of your preſent ſenſe and your memory of the figure to which it pointed the firſt time: whereas your knowledge of the ſtone moving came by direct ſenſation without aid of the memory or reflexive faculty. Now to ſee a body move I apprehend we muſt have an actual perception of it at once in two diſtinguiſhable places though it cannot actually be in thoſe two places at once, from whence it ſeems to follow that our acts of immediate per-

perception have a certain duration containing a beginning and end both preſent to us together, and whatever moves ſo ſlow as that the ſpaces it paſſes over within that duration are not diſtinguiſhable by our ſenſes appears to us quieſcent. If any one ſhall think the diſcernment of motion effected by that continuance of play in our ſenſitive organs after the impulſe of objects ceaſing mentioned in the chapter on Reflection, he will not find it warranted by experience: for a ſtone may be thrown very ſwiftly yet without drawing any trail behind though you obſerve it ever ſo carefully, and a live coal whirled very ſmoothly round upon a wheel will preſent no idea of movement at all but appear a quieſcent fiery ring. The diſtinction of places to our ſenſe depends, not upon the real diſtance between them, but upon their apparently ſubtending an angle at our eye, which the ſame extent of latitude may do when near us that cannot do it when removed farther off. Therefore the moon ſeems to ſtand ſtill when we look upon her, becauſe the change of place ſhe makes during a ſingle perception does not ſuffice to ſubtend an angle: whereas did ſhe hang ſo low as almoſt to touch our atmoſphere we ſhould ſee her whiſk over us with an amazing rapidity. Hence if any curious perſon can aſcertain preciſely what

what is the leaſt diſcernible angle and ſloweſt viſible motion, he may compute how many of our moments or preſent times there are in a minute: for by contriving to make a body move equally with that ſloweſt pace in a circle whoſe center lies at the eye, and caſting up how many of thoſe leaſt diſcernible angles compoſe an entire circle, he may reckon juſt ſo many moments in the time of one circumvolution made by the body. But if we have a meaſurable Now of our own, the whole of which is preſent to us together, we may augment it in the ſame manner we did the ſphere of our preſence, until it ſtretch to the utmoſt length we can contain in our imagination, and that will make the fulleſt idea we can form of eternity.

5. Many perſons perhaps will not readily enter into what has been here ſaid concerning the ſtanding point or perpetual Now, and truly if they do not find it occur eaſily to their comprehenſion they may e'en paſs it over, as being ſcarce worth the while to take much trouble in ſtudying it. For we do not find the conception of a continual periſhing and renewal of time by an uninterrupted ſucceſſion of moments debaſes our idea of God; and it would be difficult to make a common man feel the force of the ſchoolmen's objection or ſee any hurt in ſup-

ſuppoſing him to exiſt in that manner, ſo long as we apprehend the ſucceſſion to have had no beginning and to meet with no ſtop. We have indeed a certain period ſet to our lives, and therefore the lapſe of every moment takes away ſomething from the ſtock of futurity we had in ſtore: but eternity is an inexhauſtible fund, therefore time may go on continually periſhing without being ever totally deſtroyed, ſo that though we ſhould imagine God exiſting by moments he will never want moments to exiſt in. And as he has been pleaſed to give our ſpirits an individuality which all the powers of nature cannot diſſolve, the efflux of time is no loſs to them, who have the ſame inexhauſtible fund for a perpetual ſupply. Wherefore there is no occaſion to alter the common conceptions of mankind upon this matter, or perplex them with objections requiring an anſwer that few can underſtand.

CHAP. XIV.

OMNIPOTENCE.

THE very train of reaſoning, leading us to acknowledge a God, evinces his omnipotence, or rather, if I may ſo ſpeak, finds omnipotence in the way towards his exiſtence: for we infer a God becauſe we want a cauſe from whence all the effects and powers we have any knowledge of muſt originally proceed. Whatever is done or poſſible to be done muſt be done by ſome agent, and the aggregate of all powers and poſſibilities make up omnipotence, which we can place in no other ſubject than God, whom therefore we juſtly ſtile Almighty. Tis true we find power divided among the ſubſtances falling under our notice, one wanting what another has: but then the powers of all muſt derive from ſome one cauſe, whom we cannot ſuppoſe to want the powers he has given to other things, beſides another power not found in any of them, that of creating and allotting primary properties and original ſtations. Mr. Locke tells us that active powers alone properly deſerve the name, and I think we need make no difficulty of aſcribing

ing all thoſe we find in ſubſtances to God: for we cannot well doubt that he might if he pleaſed reſiſt and impell, that is, ſtop or confer motion like body, or excite perceptions and judgements like our organs; and that he does admit, like ſpace, appears manifeſt from the ſubſtances we ſee, each whereof muſt co-exiſt in the ſame place with that which is omnipreſent throughout all immenſity: nor can we any more doubt of his poſſeſſing in an eminent degree all the active powers diſcoverable in ſpirits. And for paſſive powers, ſuch as mobility, inertneſs and perceptivity, particularly that of pain or uneaſineſs, though we muſt not attribute them to him, yet are they all effects of an active power exerted at their creation. We ſee the courſe of nature proceed by ſecond cauſes having their ſeveral portions of power allotted in ſmall parcels among them, and theſe allotments requiring ſo many operations of active power in conferring them, beſpeak an omnipotence in the Firſt Cauſe.

2. Thus the contemplation of the works of nature, and all the powers we can diſcover operating therein, gives us our firſt notion of omnipotence: but the mind of man does not reſt here, for there requires ſomething further than actual operation to compleat the idea of power. We find many inſtances in

ourſelves wherein we might have acted otherwiſe than we have done, and conceive ourſelves able to take another courſe in our future meaſures than that we ſhall purſue: nor can we avoid thinking the ſame of God, for if we were to confine his power to the works he has actually performed, we ſhould deſtroy that choice which diſtinguiſhes him from blind neceſſity, unthinking chance, or whatever elſe has been aſſigned for a firſt cauſe: neither can a power pinned down to one particular way of acting be properly called a power. This extends our idea of power to poſſibilities as well as real events, and what has never happened nor will ever happen, is eſteemed its object equally with what has already or will hereafter come to paſs. And now we conceive omnipotence a power to do anything without thoſe impediments and reſtrictions which obſtruct us and all created ſubſtances in our operations.

3. Yet ſtill there ariſes another idea perplexing our imagination with the ſuggeſtion of abſolute impoſſibilities, which appear ſuch even to omhipotence itſelf and therefore ſeem to reſtrain and limit it within a certain compaſs: ſuch as making a body exiſt in ſeveral places, cauſing two and two to make five, annihilating time and ſpace, undoing paſt events or producing contrary ones. But all theſe things

things imply contradictions, and contradictions are generally held to be no objects of power, as their poſſibility would infer a defect rather than an enlargement of power: for if upon a power being exerted to produce a particular event, another might likewiſe enſue, it would ſhow a deficiency in the agent as being unable to prevent another iſſue from taking effect beſides that he intended. But after all I dont know why we ſhould pronounce anything abſolutely impoſſible, but rather conclude that what appears ſo has been rendred impoſſible by thoſe laws which God has eſtabliſhed immutably: and to ſuppoſe him acting contrary to them is ſuppoſing him to do otherwiſe than he has determined to do, which I am ſure is no inſtance of power. He has made body local, and to exiſt in ſeveral places it muſt be a different thing from what he intended it: he has fixed certain relations between numbers, and to alter thoſe relations would be introducing a confuſion he has not thought proper to throw upon us: he has annexed the ideas of time and place to all our ideas of ſubſtances, and to ſeparate them would be giving riſe to other conceptions than he has thought fitting for us: he has made the paſt unalterable and determined that no operation ſhall have any more than one iſſue, and to ſuppoſe otherwiſe would be ſuppoſing him to have done what

he has not done. Therefore wherever there appears a palpable impoſſibility we may depend upon the thing never happening, without aſcribing the impoſſibility to any other than the appointment of God, who has eſtabliſhed the properties of ſubſtances and iſſues of events ſo firmly that we cannot conceive them altered.

4. But there is another limitation of omnipotence invented by our moderns in what they call the nature of things: for they ſay God could not make man impeccant, could not prevent moral and phyſical evil, the latter being a neceſſary conſequence of the former, and that he muſt have a gradation of Beings in all ſtages from Nothing up to his own perfections. For my part I can underſtand nothing elſe by the nature of things beſide the properties of ſubſtances, the ſituations given them and motions impreſſed upon them, together with the mutual operations reſulting therefrom: and theſe being given to the ſubſtances at or after their exiſtence, could not controul the acts of the Almighty whereto they were poſteriour. It is the nature of plants to vegetate, therefore before there were any plants or growing bodies there could be no ſuch thing as vegetation: it is the nature of fire to burn, but before there was any fire there could be no ſuch thing as burning. In like

like manner phyſical evil began with the capacity of ſentient Beings to ſuffer by it, and moral evil depends upon this together with the conſtitution of man occaſioning perpetual ſtruggles between reaſon and appetite: for if he were not liable to ſuffering he could not take his meaſures amiſs, and if he were void of reaſon he would not do wrong in following appetite having nothing elſe to follow. That there is a ſcale of Beings I know, but that it reaches within one ſtep of Divinity I neither know nor believe: nor if it did could I aſcribe it to anything prior to the good pleaſure of their Creator, for I can ſee no neceſſity hindring that all Beings might have been made of the ſame ſpecies. Therefore the capacity of man, his ſenſitive-rational conſtitution, the various orders of Beings, the properties, ſtations and motions of ſubſtances, could not preſcribe rules to the Almighty from whoſe power and appointment they proceeded.

5. If it be alledged that we may conceive a nature of things abſtracted from the things themſelves; let us remember that our abſtractions are all taken from our obſervation of ſubſtances and their mutually affecting one another, and that the abſtract is made by an arbitrary ſeparation in our thoughts of what nature has exhibited in the concrete. It is ſaid the rules of natural juſtice are unaltera-

ble, and ſo they may becauſe reſulting from the nature of man which does not change with time and place: for he is made a ſociable creature, capable of aſſiſting or hurting his fellows, inveſted with reaſon and appetite. The brutes wanting reaſon have no juſtice belonging to them: nor would there be any rule of it in man had he no temptation to do wrong; or were he ſhut up alone like a maggot in a nutſhell there would be no place for juſtice. I ſee no contradiction in imagining that God might have placed all his ſentient creatures apart by themſelves without any knowledge or perception of one another, in which caſe there would have been no ſuch thing as juſtice in nature: therefore when he gave man his faculties and placed him in a ſituation to have intercourſe with his fellow creatures, then he made juſtice and then the nature of it began.

6 X. It is ſaid that God cannot act arbitrarily and therefore muſt have ſome rule or nature of things to guide him. If by Cannot you mean that he never does, I have no objection: but let us conſider what we underſtand by arbitrary action in men, which is when they act upon whim or humour or paſſion, all which muſt certainly be denied of him. But why muſt an action be arbitrary unleſs confined by ſome reſtriction from taking

taking another turn? we find many inſtances of the contrary in ourſelves. Tis true if I promiſe to meet a company upon any occaſion whether of buſineſs or pleaſure, though the appointment was voluntary at firſt, I am now under an obligation to keep it, ſo my liberty to do otherwiſe is gone: but this is not always my caſe, I ſometimes lay out a plan of ſeveral places I will go to, or ſeveral things I will do wherein no other mortal has any concern, and having a little ſteddineſs in my temper I purſue it accordingly, without any reſtriction upon my liberty to depart from it at any time: and ſince I look upon this ſteddineſs rather as an advantage to my character than otherwiſe, I am willing to aſcribe it in the higheſt degree to the Almighty, the tenour of whoſe conduct I conceived fixed, not by law or rule, but by voluntary determination. Wherefore there is no occaſion for attributing what we find unalterable to an antecedent nature of things limiting and preſcribing laws to God, becauſe we may ground it as well upon his immutability. This ſeems an idea more worthy of him and more conſiſtent with our notion of omnipotence; and we may draw as many good uſes from the opinion that he will not as that he cannot order the courſe of nature otherwiſe than he has done. Provided we take along with us this

this caution, to be very careful in our judgement of what things are unalterable: a point wherein thoſe, who talk moſt loudly of a nature of things, have been ſometimes groſſly miſtaken.

7. Many divines, particularly Biſhop Beveridge and Dean Sherlock, endeavour to heighten our idea of omnipotence by aſſerting that God is not only the Creator but likewiſe the continual ſupport of all ſubſtances, who would loſe their Being the moment he ſhould withdraw his operation upon them. The Biſhop after his uſual manner ſpeaks poſitively as if he knew the thing by ocular demonſtration, and uſes the compariſon of a book, holden in one's hands, to explain his meaning. For, ſays he, if I take away my hands the book will fall to the ground without any act of mine to throw it down: ſo I myſelf ſhould inſtantly drop into nothing were God to withdraw his ſuſtaining power from under me, without his needing to do anything for thruſting me out of Being. Whether the caſe be ſo with us I ſhall not pretend to determine ſo poſitively as his Lordſhip, it being a matter beyond the reach of my underſtanding to penetrate: but I may ſay we have no direct evidence of the affirmative, there being rather an appearance of the contrary in the abiding quality of bodies, which after all the

the diviſions and ſeparations that can be made by fermentation, putrefaction, diſſolution and burning, we ſtill know are not loſt out of nature. Nor does it much heighten our idea of omnipotence to imagine powers not derived therefrom, for ſubſtances it ſeems have an inherent power of annihilating themſelves if omnipotence were not conſtantly at work to counteract them. There are inconveniences attending this hypotheſis which the dean labours for many pages to remove: and though it may help to give us a full perſuaſion of our intimate dependence upon the Deity, the ſame might as well be attained by contemplation of his omnipreſence. Nor would it a little weaken our aſſurance of our own immortality, built upon the individuality of ſpirit, to ſuppoſe individuals too periſhable unleſs ſuſtained by the immediate hand of God; for though he may ſtill continue to ſupport us, we can never be ſo ſure of his future acts as of thoſe he has already done, for the latter are our proofs of the former: therefore his having given us a durable nature is the ſtrongeſt evidence we can have from the light of reaſon that it is his Will we ſhould continue for ever. And it is moſt agreable to our ideas to conceive a permanency of exiſtence in ſubſtances which nothing leſs than omnipotence can deſtroy: the powers of nature

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may form compounds, throw them into different combinations, encreaſe, diminiſh, alter or entirely diſſipate them again, but cannot take exiſtence from any ſingle particle either of material or ſpiritual ſubſtance: this has been always eſteemed a privilege reſerved to omnipotence alone, and that it requires an exertion of the ſame power to annihilate as to create. Nor will our thinking in this manner leſſen our apprehenſion of the divine ſovereignty, for nobody doubts that he who made us may deſtroy us again with a word, nor that we receive the materials for our well being, without which Being were nothing worth, by his appointment, and in this ſence he may truly be called our continual ſupport.

8. God is incomprehenſible in all his attributes, and if we go to fathom the depths of omnipotence we ſhall loſe ourſelves in darkneſs and perplexities: therefore letting alone all the ſubtilties of abſolute impoſſibilities, of an independent nature of things, and of the ſuſtentation of exiſtence in ſubſtances, let us fix our view upon a proſpect we can clearly diſcern. Let us conceive of God as performing by ſecond cauſes all the mighty works we ſee performed, and able to do whatever we can comprehend poſſible to be done. Let us conſider him giving exiſtence

ence to ſubſtances, ſolidity to matter, perceptivity to ſpirit and underſtanding to man: limiting the ocean, ſpreading out the earth as a garment, and ſtretching forth the vaſt expanſe of heaven: rolling the planets in their orbits, fixing the golden ſun, and appointing the ſtars their ſtations: cauſing gravitation between large bodies, coheſion between ſmall, elaſticity in air and ether: giving motion to the wheels of fortune, ſtability to the laws of nature, and directing both their certain courſes: forming the fibres of plants to fit them for vegetation, the veſſels of animals to carry on circulation, and the mental organs to ſerve as inſtruments for the underſtanding: making the earth yield her encreaſe for our ſuſtenance, feeding the cattle upon a thouſand hills for our uſes, ſupplying us with air to breathe, water to drink, cloaths to put on, and innumerable objects all around to employ and entertain us: commanding the iſſues of life and death, and having the future condition of ſpirits at his diſpoſal. The contemplation of theſe, and a multitude of other things, that a little thought ~~muſt~~ might eaſily ſuggeſt, will I apprehend give us the fulleſt idea of omnipotence that we are capable of, and make us ſenſible the Lord is our continual ſupport, and that in him we live and move and have our Being.

CHAP.

CHAP. XV.

OMNISCIENCE.

WE have remarked before, that intelligence is not the ſame thing in God as in ourſelves, for our intelligence would not ſuit a Firſt Cauſe: we cannot work without motives and ideas ſuggeſted by objects previouſly affecting us, ſo that there muſt be ſomething already exiſting from whence we may receive the information neceſſary to conduct us in our proceedings. Beſides, intelligence is a particular mode of perception wherein the mind is always paſſive, taking ſuch judgements as are impreſſed upon it: for judgement properly is the act of the objects under contemplation and not of the percepient, otherwiſe than by his bringing ſuch of them into his thoughts from whence ſome judgement may reſult. We may fancy but not underſtand peaches growing upon an oak, rivers running upwards: nor in general can we underſtand anything different from what it appears after the moſt thorough examination. Therefore how imperfect notion ſoever we have of pure agency ſuch as is generally aſcribed to God, we may ſee clearly that

that perception as in us being paſſive is incompatible with it: for we cannot imagine him paſſive to receive impreſſions from the impulſe of objects, nor yet can we deny him underſtanding before there was anything external to be underſtood, much leſs refuſe him knowledge of the things he has created.

2. The vulgar have an advantage over the ſtudious in ſome reſpects, for they diſcern not the difficulties which perplex the others: they make no boggle at creation believing they ſee inſtances of it in ſtriking fire, which they take to be ſomething new not exiſting before but produced by the colliſion of flint and ſteel, for they think nothing of particles detached from the colliding bodies, nor of a ſubtile matter emitted from within their pores, nor of a circumambient ether agitated by their vibrations, which being put into a certain violent motion appear in the form of fire. So likewiſe they ſeem to have experience of pure agency in their own meditations and voluntary reflections, wherein they imagine themſelves acting within themſelves without inſtrument or material, without other object than their own acts. But our experience, that when our organs are indiſpoſed we cannot think at all, may convince us that we have inſtruments to employ and materials to work upon in our mental operations: and

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upon a cloſer attention we ſhall find that even in the moſt abſtracted thought, there muſt be ſomething to be perceived numerically diſtinct from that which perceives. And in general the further we pry into the ſecrets of nature, we ſhall find her abounding in myſteries that do not occur to common apprehenſion. Since then tis the view of nature that muſt give us any conception of the author of nature, the more difficulties ariſe in the phenomena the leſs able ſhall we be to comprehend thoſe attributes by which they are to be accounted for: ſo that tis no wonder Simonides aſked ſtill longer time the further he puſhed his enquiries upon this ſubject.

3. Our inability to conceive knowledge without prior means of information, together with the abſurdity of refuſing God that knowledge he has given to ourſelves, obliges us to aſcribe him intelligence and at the ſame time to acknowledge this attribute ineffable, being ſomething of a higher nature but comprehending under it all that belongs to underſtanding as in the mind, abſtracted from the idea of any conveyance bringing it thither. Since then it would be in vain to go about to deſcribe the manner of his knowing, which in the nature of it muſt be different from ours, and yet we can form no idea of any other

other knowing than that we experience ourſelves, we are excuſable becauſe neceſſitated to think and ſpeak of him in a language ſuitable to what we have experience of. Thus we ſay he ſees all things, looks backward upon the paſt and forward into the future, diſcerns all poſſibilities together with the conſequences of his own immediate acts or thoſe of ſecond cauſes to the remoteſt chain of events, and knows whatever is the object of knowledge. The higheſt term we have to employ is Intuition, the ſame as Beholding, a term taken from our ſence of viſion, and ſerving only to exclude the ſlow proceſs of reaſon, whereby we advance gradually to the knowledge of what we cannot diſcern directly by our ſenſes or our judgement.

4. The difficulty of apprehending any voluntary act, even that of creation, to proceed without a prior intelligence, or of intelligence ſubſiſting without objects to be underſtood, has ſet men upon contriving objects for the divine intelligence co-eval with itſelf: for the ancients held forms, ideas and truths, to be eternal, obtaining a place from everlaſting in the divine mind, and I ſuppoſe theſe are what our moderns would underſtand by their unalterable nature of things. If you examine what thoſe forms and ideas were, you will find

they were not God, nor attributes, nor yet diſtinct ſubſtances, but inexiſtencies in him: which Inexiſtency was a very convenient term, implying ſomething that was both a ſubſtance and not a ſubſtance, and ſo carrying the advantages of either: as a ſubſtance it was capable of eternal duration and of furniſhing objects for underſtanding to perceive, as not a ſubſtance it avoided the plurality of neceſſary Beings, of dividing God into parts and of making ſubſtances uncreated. Nevertheleſs, admitting the reality of inexiſtencies, it will be hard to comprehend inherent eternity belonging to them, for truths are propoſitions concerning ſubſtances or ſomething relative thereto, therefore cannot be older than the ſubjects whereof they are predicated: that juſtice is better than iniquity, ſprings from the powers of men to benefit or endamage one another, and the conſequences reſulting to them therefrom which renders actions of one ſort better than thoſe of the other. We have ſeen that if there were no creatures capable of doing good or hurt, there would be no ſuch thing as juſtice in nature, and if there were no ſuch thing, there could be nothing affirmed or denied concerning it. The epithet Eternal given to ſome truths implies there are others not ſo, and the very diſtinction made between eternal and temporary truths ſhows

their

their duration to depend upon that of the ſubjects whereto they are applied. The ſame may be ſaid of forms, which are only modifications of ſubſtances: form as denoting figure could have no place before the exiſtence of matter nor perhaps before the combination of it, for we know not whether the atoms have any figure or no: and extended to a larger ſence including the form of Being in other ſubſtances, it depends upon their primary properties, ſituations and connections, which cannot be older than themſelves. But it may be urged that although all external objects were annihilated yet we might retain an idea of the forms they had exhibited, therefore there is no inconſiſtency in ſuppoſing the like idea to ſubſiſt in ſome mind before they were exiſtent. But let us conſider that the ideas we diſcern are modifications of our organs, which are exteriour to the mind that diſcerns them: and if we diſtinguiſh the perception from the idea and ſuppoſe the former in ſome mind without the latter, it muſt be a pure act and of courſe poſterior in order if not in time to the exertion of ſome power by the agent: ſo that perception muſt be the act and produce of the divine intelligence, inſtead of the object or fund in ſtore giving ſcope to it.

5. It is remarkable that thoſe, who will not let God underſtand or do anything without ideas, are the very perſons who ſtickle moſt ſtrenuouſly for a liberty of indifferency in man: ſo that they will not allow the ſupreme Being to enjoy a privilege they aſſume to themſelves. Which by the way ſhows the inconſiſtency of this ſuppoſed privilege with our notions of freedom, ſince we cannot conceive the moſt powerfull and uncontroulable of all agents to act indifferently without making him liable to humour and arbitrary proceeding: from whence we may juſtly infer that what they take for proofs of indifferency are rather inſtances of weakneſs and imperfection in man. Perhaps I ſhall be aſked whether I can conceive God to act in creating without a view to ſome purpoſe, or without a plan containing that order of ſucceſſion he was about to eſtabliſh; and I ſhall readily acknowledge that I cannot. But when I conſider why I cannot, namely, becauſe of the narrowneſs of my conception which is confined within the compaſs of my experience, and becauſe I can comprehend no other manner of knowing than that I have experienced myſelf, my not conceiving amounts to no more than a negative proof, which in a matter of this nature is no proof at all. For though want of conception be a proper evi-

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dence in things familiar to our obſervation, whoſe properties and operations we are well acquainted with, as that a ſtone cannot mount upwards without an external impulſe, that water alone cannot compoſe a vegetable, that ſolid bodies cannot penetrate one another, and the like; yet in ſubjects whereof we have no direct experience but only ſuch partial knowledge as may be gathered from their effects, we can expect to comprehend nothing further of them than their ability to produce thoſe effects: whence ariſes the diſtinction between things above reaſon and things contrary to reaſon. Since then we find an underſtanding, ſuch as ours in kind, though extended to the higheſt degree, incapable of aſſigning properties, allotting ſtations and directing other circumſtances attending creation, but are ſatisfied nevertheleſs that all theſe things require an underſtanding, let us conclude the divine intelligence a ſubject above our reaſon, and forbear to pronounce anything more concerning it than that it is ſufficient to work all that admirable contrivance which we diſcern in the works of nature. Or if we ſtill think pre-exiſtent ideas neceſſary, let us aſcribe their origin to ſome attribute yet unknown and unthought of: for we muſt not imagine that what little we know of God comprizes

the whole of his eſſence, but there are not improbably other attributes of which the mind of man has not ſo much as entertained a ſuſpicion.

6. The like difficulties, with that concerning prior information being neceſſary to compleat underſtanding, may be ſtarted concerning remembrance and foreſight, the former being in ourſelves an inſpection of traces in our memory and the latter an inference from our obſervation of paſt events. If the ſchoolmen's ſtanding point could be made clear to our apprehenſion, we need aſcribe neither remembrance nor foreſight to God, as things ſuperfluous; for the paſt and future, being alike preſent before him, might be diſcerned by intuition as well as events now actually occurring. But ſince it is not eaſy for us to ſeparate time from ſucceſſion, and ſince to common apprehenſion it does not derogate from our idea of God to ſuppoſe him exiſting by perpetual duration, we may without hurt imagine him to remember as we remember, and to foreſee as we foreſee events within our own power by knowing our own intention, where we know perfectly what may be done with the inſtruments and materials we have to employ: taking this conception as the beſt we can form and not abſolutely pronouncing it adequate to the ſubject.

7. And

7. And indeed the fulleſt conception we can obtain of the attributes ariſes from contemplation of their effects, for if we go to penetrate into nice abſtractions we ſhall find them oftener obſcuring than enlightening the mind, oftener contracting than enlarging the proſpect. Therefore as we did before upon the article of omnipotence, let us now take a ſhort ſurvey of nature to find the cleareſt footſteps of omniſcience. Let us conſider the Creator, determining the preciſe number of ſubſtances, allotting them their properties and capacities neceſſary to compleat the grand deſign he had in view: forming a plan to make a world, which was to laſt for ages with infinite varieties and ſucceſſive changes, out of homogeneous matter, where every particle muſt have its appointed ſtation, every motion its determinate velocity and direction: calculating exactly at one glance all the combinations they will run into, the ſpecies of compounds they will produce, together with the ſecondary qualities, operations and mutual affections, reſulting therefrom. How ſtupendous muſt be that wiſdom which directed infinite power, and by which every thing was eſtabliſhed in number, weight and meaſure! He knew the exact quantity requiſite of that inviſible force whereon fermentation, heat, exploſion, repulſion and the four

attractions depend, which, had it been greater or leſs might have produced nothing but diſorder in nature. He proportioned the elements that none of them might predominate or fall deficient, and contrived ſprings for mingling them together that they might concur in forming the productions he deſigned. He appointed the degree of influence in the ſun and moon, the inequalities of the earth, the riſe of exhalations, the variety of ſoils and other cauſes which bring on the change of ſeaſons, viciſſitudes of weather and various diſpoſitions of the air, cauſing the earth to yield her encreaſe in proper meaſure neither redundant nor wanting. He contrived the curious ſtructure of vegetables, the more admirable organization of animals, where every veſſel, gland and fibre, every part, performs its ſeveral office for the growth and preſervation of the whole. He adapted the contexture of his plants to the wants of his living creatures, ſo that each ſpecies has its proper food, its neſts and places of harbour, and finds uſes in that which is unſerviceable to others. He ranged his elements in ſuch order as to carry on the courſe of nature without perpetually needing his own interpoſition: ſo that they produce minerals and foſſils below, vapours, clouds, dews and rain above, inſinuate themſelves into the ſeed to

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make it germinate and into the plant to make it bear fruits and ſeeds again, into the fœtus to bring it to maturity and into the perfect animal cauſing it to fructify and renew the ſpecies. He gave various inſtincts to brutes and appetites to man, urging both to effect purpoſes they do not think of themſelves. He allotted their ſeveral provinces to the cauſes of deſtruction as well as thoſe of formation and preſervation: he maketh the ſtorms his miniſters directing them what to overthrow and what to ſpare: he commandeth the earthquakes how far to lay waſte and where to ſtop; the lightning whom to ſtrike and whom to paſs over. Blight, famine and peſtilence, have their limits in what quarters and what extent to ſpread their havock, chance and caſualty, their directions when and where to fall: and all this by the intervention of ſecond cauſes, which are ſo wonderfully contrived and exactly adjuſted as never to diſturb that order of ſucceſſion he has eſtabliſhed.

8. Nor is his wiſdom leſs conſpicuous in the moral than the natural world: he has put much into the power of free agents and left many things to their choice and management, yet he directs their choice by ſuch unſeen ſprings as lead them to execute his purpoſes when they leaſt intended it. He has

has diſtributed various conſtitutions, talents, endowments, paſſions and deſires among men, ſo that ſome are fitted as well in ability as inclination for every office wanted in ſociety, and all the conveniencies of life depending on human induſtry ſupplied. Commerce, agriculture and the mechanic arts, want not hands to carry them on, nor policy, learning and ſcience, able heads to improve them: the jarring intereſts and oppoſite views of private perſons ſerve to ballance one another, and are made to produce order by their proper commixture out of that which ſeparately would tend to confuſion. He knows how and when to raiſe up peculiar characters that may found empires and overthrow them, to erect new kingdoms upon the ruins of old ones. Nor does he only provide for the eſtabliſhment, the ſecurity and general welfare of nations, but ſo directs the behaviour of men to one another and the diſpenſations of fortune, that each individual ſhall receive the preciſe portion of good and evil intended him. Nor are his cares confined to this ſublunary ſtage, for we have ſeen that the ſpirits of men are of a nature to endure after their diſſolution from the body, and we cannot ſuppoſe the primary properties given them for nothing, but that they ſhall receive perceptions by other channels than thoſe which convey

vey them now: ſo that there muſt be a different ſet of laws for the ſeveral forms of Being we are to undergo, and, as we may reaſonably preſume, a connection of intereſts between the viſible world and the inviſible: to adjuſt which, requires a more ſtupendous wiſdom than anything falling under our notice can exhibit, though that is enough to excite our wonder and exceed our comprehenſion.

9. And this conſideration may help to remove ſome objections that have been raiſed upon the ſeeming errors of nature, as that ſhe waſtes her ſtrength in unprofitable efforts and ſometimes thwarts the purpoſes we ſuppoſe her to have intended. Lucretius urges that the world could not have been made in wiſdom being ſo full of defects: ravenous beaſts, poiſonous herbs and peſtilential vapours abound, the rain falls upon the ſea where it can do no good, the ſun ſhines upon barren rocks where it can produce nothing, and man is liable to continual diſappointments and diſaſters. But nature is not thought to work in vain when ſhe contrives a curious ſtructure in the grains of corn fitting them for vegetation, although that purpoſe be defeated by the corn being made into bread for the nouriſhment of man: but rain falling into the ſea where man receives

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no benefit by it is exclaimed againſt as a want of contrivance, becauſe we judge of prudent and vain ſolely by what relates to ourſelves; as if nature had nothing elſe to do beſides tending our ſervices, and whatever was of no uſe to us were abſolutely uſeleſs. Beſides that we may be miſtaken in our premiſſes, for what is not of immediate uſe may be remotely ſo; perhaps the freſh water mingled with the ſea may prevent its ſending up exhalations that might be hurtful to us, and the ſun darting heat upon rocks communicate a warmth to the ground below or air above which does a good we know not of, or at leaſt we may allow it to influence the weather and thereby affect the growth of fruits and corn. But ſuppoſing theſe things were of no ſervice to us they may do ſervice to the fiſh, the inſects or other creatures, who deſerve ſome ſhare in the cares of nature together with ourſelves. As to the diſaſters and diſappointments befalling mankind, we many times find reaſon afterwards to rejoice at their having happened, and many more times there may be reaſon though we do not diſcern it: but if there be any from which we receive no real benefit and that the condition of life were better upon the whole without them, yet they may be ſome way ſerviceable to other Beings or to ourſelves in another

another ſtate of being. Nor is it an exception againſt our argument that we proceed upon what may be without ſhowing what is the caſe, for the burthen of producing evidence lies upon the objector: there are innumerable marks of wiſdom in many works of nature, therefore a poſſibility of there being the like in thoſe where we cannot trace it is a ſufficient defence, and whoever would arraign this wiſdom ought to ſhow that the latter cannot terminate in any good effect. For our not diſcerning the expedience in ſome performances of an agent, does not overthrow the opinion we had entertained of him from others, nor has it that effect upon us in the common occurrencies of life: if a man of whoſe ſkill in language and knowledge we had experience were to deliver himſelf darkly and myſteriouſly upon ſome occaſions, we ſhould not preſently conclude he had no meaning in what he ſaid. If we went into the workſhop of an artificer where we found many things admirably contrived and put together beſides others whereof we could not poſſibly gueſs the uſes, we ſhould not infer from the latter that he proceeded fooliſhly and unthinkingly in all we ſaw before us. In both caſes we ſhould attribute the ſeeming uſeleſsneſs of anything we ſaw or heard to our own want of diſcernment: and much more

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ought we to do ſo with reſpect to the operations of nature, whoſe tendencies and mutual dependence we have ſo inſufficient faculties and ſo little opportunities to inveſtigate.

10. When we reflect what a wilderneſs of thought muſt be requiſite to govern innumerable worlds and order all the particulars belonging to them, we ſhall find it inconceivable that ſo much can be contained together in one underſtanding: therefore ſome have made it an objection that ſuch a boundleſs variety muſt perplex and burthen even the divine intelligence. But let us conſider why a multitude of thoughts are perplexing and burthenſome to ourſelves: we perceive by organs and can have no more perceptions than they from time to time excite in us, but the ſphere of our preſence being too narrow to admit many of them to work upon us together, we are forced to labour and toil in bringing ſuch of them into play as we want, and generally others intrude with them which diſturb their operation and perplex our ideas. But how much difficulty ſoever we may have found in connecting a chain of reaſoning or forming a train of thinking, when once become familiar to us by frequent contemplation, we find no difficulty in running it over afterwards and comprehending ſo much of it as we can contain in one view: for what-

whatever occurs readily to our thought we diſcern eaſily and diſtinctly, nor find any trouble or perplexity in perceiving where the proſpect lies full and clear before us. If then we will needs imagine God to underſtand as we underſtand by the perception of objects, let us remember that the ſphere of his preſence extends throughout all immenſity, that he wants not the miniſtry of organs to bring objects before him, none being ever abſent from him or removed out of his reach. And perceptions take up no room in the thought nor interfere with one another, but tis the want of them that cauſes perplexity.

11. There are ſome truths, as was remarked at the end of our chapter on Judgement, reputed ſelf-evident becauſe they ſtrike the mind irreſiſtibly, yet we cannot trace their origin nor deduce the train of reaſoning whereby we arrived at them: among this claſs may be reckoned the Divine Happineſs, which we do not diſcover from the works of nature as we do the other attributes. The mighty fabric of the world manifeſts an omnipotence, and the apt concurrence of cauſes to anſwer their ſeveral uſes and purpoſes declares an omniſcience: but we cannot infer the happineſs of the Supreme Being from that of his creatures any more than we can the contrary from their miſeries. For ſatisfac-

tisfaction in ourſelves is a perception, it is a ſtate the mind is thrown into by the act of objects ſtriking upon our ſenſes or reflection, wherein we are entirely paſſive nor can help receiving either pleaſure or pain while the proper cauſes are operating: but we cannot aſcribe paſſivity to God nor imagine his condition to depend from time to time upon the agency of anything external. Nevertheleſs the very ſound of a miſerable or an inſenſible Deity is ſhocking to the ear and repugnant to all our notions, nor was there ever any one who admitted the Being of a God that did not conceive him unſpeakably happy. We find happineſs the only thing deſirable, or that which renders all other things deſirable, and conſtantly employ our efforts to procure it; therefore we might ſuppoſe that where there is almighty power and infinite wiſdom, all means of happineſs would be put in practice: but God uſes no means to obtain it, evil cannot approach him nor does he want objects or channels to convey him happineſs. He made not ſpace for his own reception, matter for his own uſes, nor ſentient Beings for his own ſolace and ſociety, but poſſeſſed infinite happineſs in himſelf from everlaſting without receiving encreaſe therein by the works of creation. This is what man's judgement will agree to, and

ariſe of the contrary: therefore we may pronounce God ineffably happy, but that happineſs in him is not juſt the ſame as we feel it in ourſelves.

CHAP. XVI.

GOODNESS.

OF all the divine attributes there is none concerns us more nearly or the juſt notion whereof is more deſirable than this of Goodneſs; and yet none perhaps wherein we find more difficulty to form a ſatisfactory idea, not liable to objections and inconſiſtencies. Infinite power and wiſdom avail us nothing of themſelves, but are rather objects of amazement and terror than of comfort and confidence: and it were better for us to live under a kind beneficent governour though a little defective in knowledge and ability than one unlimited in either but regardleſs of our weal or woe: for the former would procure us more good than harm, but what befell us from the latter would be meer chance and accident. The contemplation of omnipotence, omnipreſence and omniſcience without goodneſs,

has moſt of anything driven men into atheiſm: for they looked upon ſuch a Being as a univerſal ſpectre hovering continually over them, prying into all their affairs, able and ſkilfull to affect them in what manner he pleaſed; and as we are apt to expect the worſt from uncouth appearances, they choſe rather to put themſelves under the guidance of chance or neceſſity, therefore uſed all their wits to perſuade mankind that the notion of a God was only a phantom raiſed in their imagination by crafty perſons who found an intereſt in affrighting them. Thus we find the idea of goodneſs inſeparable from that of God in the minds of all men, for thoſe who could diſcern no marks of it in the works of nature concluded from thence that there was no God, admitting that if there were he muſt be good: and all who have acknowledged a God have aſcribed goodneſs to him as an eſſential attribute. Even the Magi when they aſſerted another co-eternal principle, they did it to aſſign a cauſe for ſome things they thought could not proceed from that unlimited bounty and goodneſs which they believed reſiding in God.

2. But the attributes of God muſt all be infinite, for there is nothing external, nothing prior to limit him in his powers or his operations: here then ariſes the difficulty, for if

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the goodneſs of God be infinite, whence comes there any evil in the world? Yet that there are innumerable evils the phenomena of nature ſufficiently aſſure us: ſtorms and tempeſts, earthquakes and inundations, lay fields and cities deſolate with all their produce and inhabitants, blighting winds and peſtilential vapours wither up and deſtroy, ravenous beaſts devour, villains aſſaſſinate, thieves break through and ſteal, tyrants oppreſs, diſeaſes torment, croſs accidents vex, old age debilitates, our neceſſary employments fatigue, our wants interfere, our very pleaſures cloy, and man is born to ſorrow as the ſparks fly upwards. We are neceſſitated to deſtroy vermin that would overrun us, to ſlay our fellow creatures for our ſuſtenance, to weary them out with toil and labour for our uſes, to preſs one another into wars and ſea ſervices for our preſervation. Nay evil is ſo interwoven into our nature that the buſineſs of mankind would ſtagnate without it, moſt of our cares being employed in delivering ourſelves from troubles we lie under or warding off thoſe that threaten. If a man were placed in ſuch a ſituation as that no pain or miſchief, no ſatiety or uneaſineſs, no loſs or diminution of enjoyment could befal him, he would have no inducement ever to ſtir a finger: [illegible] the periſhable nature of our ſatisfactions

that urges us to a continual exertion of our activity to renew them. Now it has been aſked that if theſe unfavourable circumſtances attending human nature could not be prevented, where was the almighty power of God? if he knew not how to prevent them, where was his wiſdom? if he could and might have prevented them but would not, where was his goodneſs? Nor will it ſuffice to anſwer that many of the evils before mentioned tend to produce greater good and tis probable the reſt of them do the like: I am ſo far from denying this probability that I may offer ſome reaſons by and by for confirming it, but admitting that good ſprings out of every evil, this muſt be owing to the neceſſary connection between both in the preſent conſtitution of nature, but when we conſider that nature is not only directed and governed but was originally conſtituted by the hand of God, the difficulty ſtill recurs. For if he wiſhed to have given his creatures unmingled good but ſaw no other conſtitution of nature poſſible beſides that he has eſtabliſhed, this ſeems to limit his power and we are at a loſs to account for ſuch limitation: if there were other conſtitutions poſſible containing no mixture of evil, this perplexes us with reſpect to his goodneſs which we cannot

not conceive to chooſe a frame of nature diſagreable to itſelf.

3. Several ſolutions have been attempted for this difficulty none of which reach to the bottom, for they ſtop all at ſecond cauſes without reflecting that the properties and powers of ſecond cauſes depend upon the Firſt: therefore as often happens in trying to unravel an entangled thread, while they looſen the knot in one place they draw it tighter in another. Seneca lays the fault upon the materials which he tells us were diſobedient to the artiſts hand, for he ſays there are ſome ſluggiſh elements not ſuſceptible of active and lively forms: how far this aſſertion unravels any thing I leave others to find out, but it certainly ſuppoſes two firſt principles, a blind neceſſity or unſentient nature to furniſh materials and work them up into elements, and a divine artificer whoſe office was only to form ſuch combinations as they were capable of being placed in: for if he had created his own materials we may preſume he would have given them qualities ſuitable to the purpoſes he intended them for. Some aſcribe evil to our immerſion into matter: I know we receive all our evil from the action or by the intervention of material cauſes, but ſo we do all our pleaſures and ſatisfactions too. This only points out the channel thro' which

evil is derived to us, but does not go to the fountain head: for why ſhould we pronounce it impoſſible that a matter might have been created with different properties from the preſent, fitted for exciting pleaſant perceptions but not painful? or what contradiction is there in ſpirits having a capacity given them of the former without any of the latter? or who can ſhow the neceſſity of an immerſion into matter at all? Might not ſpirits have been made capable of affecting one another with perceptions? or might they not, as Berkeley ſuppoſes, have received ſuch ſucceſſion of ideas as was thought proper for them by the immediate hand of God? Others attribute all the miſchief in the world to the abuſe of free will: if they mean a free will of indifference they ought to ſhow there is ſuch a power, for we have found no footſteps of it in our ſurvey of human nature; if they mean a free will chooſing upon motives, this acts always according to the ſtate of the imagination repreſenting diſtant good in fainter or equally vivid colours with preſent pleaſure: and I believe all who admit a ſpiritual ſubſtance hold that there are ſocieties of ſpirits in nature whoſe imaginations are ſo rectified that they never chooſe amiſs, and tho' they hold their happineſs by the tenure of their obedience are in no danger of forfeiting it.

Now how little foundation ſoever there may be in fact for the doctrine of irreſiſtible grace, can it be ſhown impoſſible in theory: for if deſire, that is, the proſpect of ſatisfaction be fixed upon the proper point, free will never fails to follow it: and a proſpect depends upon the objects lying in view, which in this caſe are the modifications of our mental organs capable certainly of receiving any changes from the divine operation upon them, whereby our ſentiments and actions may be influenced without the leaſt impeachment or controul of our liberty. Or if reaſon and free will muſt unavoidably draw ſome miſchiefs after them, who will preſume to ſay that almighty power had not other faculties to beſtow not attended with the like inconveniences? Nor at moſt can this cauſe account for all the evil found in the world, for the brute creation tho' incapable of miſconduct have their ſhare of it, and tho' much of their ſufferings ſpringsfrom the tyranny and capriciouſneſs of man, all does not: for there are pains and hurts, terrors and ſlaughters, wants and diſtreſſes, among the beaſts, the fowls and the inſects, in wild foreſts where the foot of man never trod nor the Will of man ever interfered.

4. There are thoſe who alledge the abſurdity of creatures being equally perfect with

their Creator, and that imperfection neceſſarily implies a liableneſs to evil: but this conſequence I cannot diſcern, for there is a manifeſt difference between actual pain and the abſence or diminution of pleaſure. A child is leſs perfect than a man, but the uneaſineſſes befalling a child ariſe from diſeaſes, ill management or accidents, not from the imperfection of its organs. A creature with dull capacity, ſmall powers and few materials of enjoyment, might nevertheleſs be placed in a ſituation to exempt it from all want and trouble. The wiſeman of the philoſophers and glorified ſaint of the Chriſtians, altho' ſuppoſed to ſtand above the reach of all evil, are ſtill very imperfect in compariſon with the Author of their Being: wherefore evil is not ſo connected with imperfection but that the one may ſubſiſt without the other. Beſides, if it were otherwiſe one ſhould expect to ſee them always accompany one another in equal proportion, but the contrary appears manifeſt from experience; for perſons of the brighteſt parts and moſt extenſive knowledge are not always the freeſt from troubles, and intelligent man has no leſs his ſhare of them than the fooliſh oſtrich or the ſtupid beetle. Nay that quick ſenſibility, which is the groundwork of all advances towards perfection, encreaſes the pungency of pains and vexations.

vexations. Many talk of a ſcale of Beings which they ſay muſt riſe in a continued gradation from Nothing to the divine perfections: yet they cannot deny that there is an immenſe gap between the higheſt rank of creatures and their Creator, and why might not there have been a gap between Nothing and the bottom of the ſcale, ſo as to exclude all thoſe degrees which neceſſarily contain a mixture of evil, if there be any ſuch, which we have juſt now ſeen cauſe to doubt of? But neither do they ſhow why there muſt be a ſcale of Beings, nor what inconveniency would enſue upon the loweſt being raiſed to the condition of the higheſt. Do they make an attribute of curioſity, and imagine the Supreme Being like ſome great nobleman who will have animals of all kinds in his menagerie to divert himſelf with looking upon them? Or did it coſt omnipotence more trouble to make an angel than an oyſter, ſo that being fatigued with working up the former, the latter was undertaken by way of play and recreation? Or does one take up more room in nature than the other, and after the univerſe was filled with Beings of the ſuperiour order, there remained ſpace only for the inferiour claſſes in the interſtices between them? In ſhort it ſeems laying a reſtriction upon almighty power to imagine that things could not

not have been conſtituted otherwiſe than they are, and to conclude that becauſe we ſee a ſcale of Beings, freewill liable to abuſes, pains and troubles brought upon us by the action of matter, therefore God was under a neceſſity of ordering the world after this manner.

5. Sometimes we meet with perſons who in handling this ſubject endeavour to ſtop our mouths with rhetoric inſtead of convincing us with logic, for they tell us that ſtarting theſe difficulties concerning goodneſs is murmuring againſt heaven. Hath not the potter power over his clay to make one veſſel to honour and another to diſhonour? This compariſon was very proper for the purpoſe it was intended to anſwer, namely, to ſilence the unreaſonable clamours of ſuch as fancied themſelves injured by the diſpenſations of Providence, but by no means helps us forward in a ſober enquiry into the nature and extent of the attribute under conſideration. For the queſtion is not what the clay has a right to expect, but what we conceive it likely that a beneficent potter would do, if he knew his veſſels capable of enjoyment or ſuffering according to the mould wherein they were caſt. The meaſure of bounty is not the rights but the wants and capacities of the ſubject whereon it is exerciſed; nor does bounty begin until juſtice ends, for there is none in giving

giving every one barely what is his due. Were there a man who ſhould provide neceſſaries and conveniences for his children, lead them into all uſeful accompliſhments, indulge them with variety of pleaſures and amuſements, they ought to think themſelves happy under ſuch a parent notwithſtanding he might have ſome humours which were troubleſome to them now and then; yet another who were clear of this exception were better. So we when we weigh the bleſſings againſt the troubles of life and find how greatly the former exceed the latter, have abundant reaſon to be ſatisfied with our lot: yet when we reflect on the character of our heavenly father in whom there can be nothing of humour or illwill or grudging, the preponderancy of good does not account for the few evils ſcattered up and down among men, becauſe tho' we can ſtill acknowledge him good, we are apt to imagine that if theſe were removed he would be better. So that our want of title to better fortune than is allotted us does not help to reconcile the phenomena of nature with our notion of infinite goodneſs: for the difficulty ſprings from our idea of the Donor, not from our own merits nor from any exception to the value of his gifts.

6. Thus all that has been ſuggeſted to account for the origin of evil has proved unſatisfactory

ſatisfactory, and it ſtill remains an inſcrutable myſtery which has perplexed the thoughts of men from the days of Job down to the preſent times, and probably will continue to do ſo as long as there ſhall be men on earth to deſcant upon it. Tho' we have not an adequate idea of infinite power ſo as to determine in all caſes what is abſolutely impoſſible or implies a contradiction, yet we may clearly ſee that whatever has been done might have been omitted, and that the capacity of ſuffering is a property given to creatures with their being: nor can we imagine a neceſſity conſtraining God to form a world in a manner not ſuitable to his intention or attended with inconveniences he would wiſh to have removed, without derogating from his almighty power and without admitting two Firſt Cauſes interfering with one another. Therefore we muſt needs acknowledge that God created evil as well as good, and that nothing of either happens to his creatures unleſs by his appointment or permiſſion: and if this ſeems to derogate from his goodneſs, let us conſider whether we have an adequate idea of goodneſs, or know preciſely what is belonging and what repugnant to it.

7. Goodneſs in ourſe[illegible] proſpect of ſatisfaction annexed to [illegible] ſo that we pleaſe them

ceive ourſelves in ſo doing, or to avoid the uneaſineſs we ſhould feel on omitting it. But God is compleatly happy in himſelf nor can his happineſs receive encreaſe or diminution from anything befalling his creatures: wherefore his goodneſs is pure diſintereſted bounty without any return of joy or ſatisfaction to himſelf. Therefore 'tis no wonder we have imperfect notions of a quality whereof we have no experience in our own nature: for we know of no other love than inclination, which prompts us to gratify it in the ſame manner as our other inclinations. In the next place let us examine our idea of infinite goodneſs taken in the abſtract before we enquire whether God be good or no, and we ſhall find it incompatible with that of infinite power: for infinite goodneſs according to our apprehenſion requires that it ſhould exhauſt omnipotence, that it ſhould give capacities of enjoyment and confer bleſſings until there were no more to be conferred; but our idea of omnipotence requires that it ſhould be inexhauſtible, that nothing ſhould limit its operations ſo that it could do no more than it has done. Therefore it is much eaſier to conceive an imperfect creature compleatly good than a perfect Being, for if he purſues invariably all opportunities of doing good to the utmoſt of his power and knowledge, he deſerves

ſerves that character, and if there are any injuries ſuſtained which he cannot redreſs, any diſtreſs unrelieved which he knows not of, his weakneſs and ignorance are a full excuſe for his omiſſion. But where there is almighty power, unlimited knowledge and perfect wiſdom, we can neither conceive that infinite goodneſs ſhould extend to the utmoſt bounds of that which has no bounds, nor yet that it ſhould ſtop until it can proceed no further. Since then we find our underſtanding incapable of comprehending infinite goodneſs joined with infinite power, we need not be ſurprized at finding our thoughts perplexed concerning them: for no other can be expected in matters above our reach, and we may preſume the obſcurity riſes from ſomething wrong in our ideas, not from any inconſiſtencies in the ſubjects themſelves. In the laſt place let us remember that the attributes of God are infinite, therefore if he were not infinitely good he muſt have been infinitely malicious, for either in him muſt be pure and original independent on further views which might ſometimes render one expedient and ſometimes the other: but this the moſt melancholy imagination never yet ſuſpected of him, for there is nobody ſo deſtitute of enjoyment, or ſo overwhelmed with pains and diſtreſſes, as not to

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be ſenſible that almighty power might have made his condition ſtill worſe.

8. Having thus taken off the force of thoſe objections urged againſt Divine Goodneſs by ſhowing that ſuch will naturally ſtart up upon matters whereof we cannot have a full comprehenſion, and that greater will ariſe upon the contrary ſuppoſal, let us now try what clear ideas we can form of it, and what evidence we can gather of its reality from our experience. And we need not go far to ſeek for proofs; the very air we breathe, the food we eat, the reliſh we find in our enjoyments, the materials miniſtring them to us, the benefits and mutual ſolace of ſociety, the faculties of underſtanding and volition, the value of life which renders it generally deſirable, are ſo many ſtriking marks of a beneficent diſpoſition in the giver of all theſe things. Even our troubles come attended with their alleviations: we have remedies and aſſiſtance in diſeaſes, comfort in diſtreſſes, and hope lies ready as a ſalve for every ſore, nor are there are any in ſo forelorn a condition but may find ſomething to thank God for if they will look about to ſeek it; for he remembers mercy in judgement and gives us a glimpſe of his goodneſs in the very ſeaſons when he afflicts us. Epicurus, tho' diſpoſed to find all the faults he could in the ſyſtem of nature,

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yet made it one among his collection of Maſterly Maxims, That pain if grievous was ſhort, if long it was light. Nor are the brute creatures diſregarded by the author of their Being: he ſupplies them with food for their ſuſtenance, cloathing of hides, feathers or ſhells for their defence, harbouring places for their ſecurity, appetites for their preſervation and entertainment, inſtincts for their direction: the beaſts and fowls breathe his air, the fiſh take their paſtime in his waters, the reptiles live upon his bounty, and the moſt contemptible inſects receive their portion of enjoyment from his hand.

9. The epithet Contemptible happening to occur in the laſt line, ſuggeſts a train of thought that may lead to ſomething ſerviceable upon the preſent occaſion; for nothing is contemptible in the eyes of God, 'tis the vanity and ſelfiſhneſs of man that ſets him in conceit at an immenſe diſtance above other creatures and thereby renders them objects of ſcorn and contempt: ſo I run the hazard of offending the delicacy of my cotemporaries by repreſenting almighty power and wiſdom employed in providing conveniences and enjoyments for the piſmire, the earth-worm and the mite, the ugly ſpider, the filthy maggot and the venomous adder. Nor might have ſucceeded with them

tended the obſervation no further than to the human ſpecies; for they concern themſelves not with what happens to the indian, the ſavage or the hottentot, they care not for the greaſy plowman or the dirty cinder wench: perſons born in a cottage are thought below their notice, all who want their own knowledge and politeneſs deemed incapable of enjoyment. So that we loſe the view of all the good done to objects we eſteem unworthy of any regard, and when things happen amiſs to ourſelves we forget how often they have happened to our wiſhes. This narrowneſs of mind contracts our proſpect of nature, and as ſhe has ſome dark ſpots upon her face, if the eye fixes upon one of theſe it ſees nothing but gloom and deſpondency; whereas were our viſion a little enlarged we might perceive every dark place ſurrounded with a ſplendor of light.

10. It is obſervable that men commonly take their eſtimate of nature from themſelves and their own ſituation: while ſucceſs attends them they think they ſhall never meet with diſappointment, and when diſappointment ſtands acroſs their paſſage they think they ſhall never ſee the lucky moment again: while in the vigour of youth, the conſtitution ſtrong, the ſpirits alert, deſires eager and many of gratification continually at hand,

they find no fault or blemiſh in nature, the world is then a glorious world and pleaſures expected without end, we hear of no murmurings againſt Providence nor miſtruſts that things are not ſo well ordered as they ſhould be, but they are rather apt to think God, as I may ſay, too good, ſo as to wink at their miſcarriages, indulge them in their follies, and ſuffer them to do what miſchief they pleaſe to their fellow creatures without controul. But when pain, diſeaſe, diſappointment or diſtreſs, pinches them, the tables are turned, they ſee not nor ſympathize with the enjoyments abounding elſewhere, but take their judgement of nature from that little ſpot wherewith they have immediate concern, and then doubts ariſe concerning the condition of things: why was not this miſchief prevented? where was almighty power that could not, or where was infinite goodneſs that would not prevent it? Thus we ſee that infinite goodneſs ebbs and flows according to the ſtate of our minds: when we are at eaſe in ourſelves, we find no difficulty in entertaining the idea of it; when diſſatisfied with our preſent condition, nothing is harder for us to comprehend. Nor is this to be wondered at, for vexations of every kind give a melancholy caſt to the mind, deſtroying the reliſh of thoſe pleaſures which uſed to delight us before, ſo that

that we have nothing ſimilar in our imagination wherewith to compare the ſenſations of others: for our only way of eſtimating other people's enjoyments is by imagining ourſelves in their circumſtances and reflecting on the joy we ſhould receive thereby, but when the mind is ſo diſpoſed as to care for nothing and find a reliſh in nothing, we cannot readily conceive others wiſhing or caring for what would not affect us; and therefore being unable to form a clear conception of enjoyment either in ourſelves or elſewhere, we loſe the idea of that goodneſs which can be apprehended only by its effects.

11. Thus we find our unfavourable ſuſpicions of nature owing to the wrong turn or diſordered condition of our imagination, when our own ill management or unlucky circumſtances confine our view to the leaſt favourable of her features: for ſo a man may take diſtaſte to a fine building if he be locked up in the neceſſary or reſolve to look upon nothing elſe. Therefore it behoves us to take the opportunity for forming our judgement when the mind is moſt in tranquillity, not ruffled by vexations nor preſſed by importunate deſires, when the underſtanding is cleareſt, when we can extend our view all around and conſider everything impartially: and we may help ourſelves not a little towards en-

larging our mind by contracting a habit of benevolence. I have already taken notice in the chapter upon that article, as one of the advantages accruing from a benevolent temper, that nothing contributes ſo much to open the heart, to enliven the imagination and give a cheerfull caſt to the ſcenes around us. For what we wiſh well to we think well of, and if we wiſh well to everything we ſhall be attentive to the ſucceſſes and pleaſures that happen to everything: and by turning our obſervation conſtantly that way ſhall find ſubjects to rejoice at which the ſelfiſh and narrow ſpirited never know. We ſhall ceaſe to meaſure others ſatisfactions by our own ſtandard, or think nothing deſirable to them which we would not chooſe for ourſelves; but ſhall diſcern a variety of taſtes adapted to the ſeveral conditions wherein men are placed, and things which were irkſome at firſt becoming pleaſant by cuſtom. We may ſee that children have their plays, the vulgar their amuſements, coarſe jokes and maygames: even folly does not exclude pleaſure nor poverty baniſh contentment. There is as much mirth in the kitchin as the parlour, and as great diverſion in a country fair or a cricket match as a card aſſembly or a ridotto. The cobler whiſtles at his ſtall, the dairy maid ſings while ſhe is milking, the plowman

man munches his mouldy cruſts with as good reliſh as the rich man eats his dainties, for he has that beſt of ſauces hunger to ſeaſon his victuals. Labour purefies the blood, invigorates the limbs, ſtrengthens the digeſtion, enſures quiet ſleep and renders the body proof againſt changes and inclemencies of weather, all which are conſiderable articles in the enjoyment of life, nor can their loſs be compenſated by any advantages of family, fortune, learning and politeneſs. Nor is the loweſt herd incapable of that ſincereſt of pleaſures, the conſciouſneſs of acting right, for rectitude does not conſiſt in extenſiveneſs of knowledge but in doing the beſt according to the lights afforded; and many artiſans, ſervants and labourers, find as much ſatisfaction in fulfilling the duties of their ſtation as the philoſopher in his reſearches into nature. Nor need we ſtop at the human ſpecies, for the brute creation too exhibits ſcenes agreable for the good natured man to look upon, he may rejoice to ſee the cattle ſporting in the field; or hear the birds ſinging or chirping out their joys, to behold the ſwallow building neſts to hatch her young, the ant laying in ſtore of proviſions for her future accommodation, the flies in a ſummer evening dancing together in wanton mazes, the little

pucerons in water friſking nimbly about as if delighted with their exiſtence.

12. Whoever has a heart to enjoy ſuch contemplations will be apt to purſue them until he has ſatisfied himſelf there is a much greater quantity of enjoyment than ſuffering upon earth: for pleaſures ſpring from ſteady permanent cauſes, as the vigour of health, the due returns of appetite, and calls of nature to exerciſe or reſt; but pains proceed from accidents which happen rarely, or diſeaſes which are either ſlight or temporary. And he will entertain a favourable idea of that bounty which ſupplies deſires and means of gratifying them to every ſpecies, from imperial man down to the ſcarce perceptible inſect. When he has filled his imagination with this idea he may draw comfort from it in his ſeaſons of affliction and diſtreſs, for tho' he finds no pleaſures within his own reach or have loſt the reliſh of any that might be offered him, he may reflect how many thouſands at that moment are dancing and ſinging, marrying and giving in marriage, advancing towards the accompliſhment of their wiſhes, and purſuing all kinds of enjoyment with full guſt and ſatisfaction: how many millions of animals are eating their food, providing for their accommodations, taking their paſtimes, or ruminating in their lurking holes; and this

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conſideration may alleviate his trouble. I do not mean nor expect that he ſhould carry his benevolence to ſuch an unattainable height as to make the joys he feels in ſympathizing with the joys around him ſtifle the ſmart of every evil that can befall him: but he may gather this conſolation from them, that there is an inexhauſtible ſpring of bounty flowing inceſſantly upon the world, and from thence conclude that himſelf ſhall partake in due meaſure of the ſtream at ſome time or other, if not in his preſent at leaſt in ſome future ſtate of Being.

13. For the great preponderancy of good over evil in this part of the creation lying within our view, manifeſts a beneficence in the character of the Author, which muſt operate likewiſe no leſs in all other parts of his work: for ſo we reaſon in matters familiar to our acquaintance. We know nothing of cauſes unleſs by their effects, nor the characters of perſons unleſs by their deeds. We know that fire will burn becauſe we ſee wood conſumed by it, that water is fluid becauſe we ſee it fluctuate and diſperſe. If a man has been uſed to cheat we expect he will cheat again, or if he has long behaved with honeſty and truth we expect the like behaviour from him for the future. Thus our whole dependence upon the qualities of bo-

dies we daily handle and perſons we daily converſe with reſts upon our experience: and we have or may have, if we will take pains to acquire it, the like experience of an unwearied bounty pouring bleſſings all around us: ſo that we have as good ground of aſſurance that God will continue to do good as we have that fire will burn, that a ſtone will reſiſt the touch, or that our boſom friend will not betray us. Were we entertained in the family of ſome nobleman, if we found him kind and condeſcending to his dependents, humane to his ſervants, carefull to eſtabliſh ſalutary orders for the regulation of his houſehold, watchfull to ſee that even his cattle had their proper food and conveniences, we ſhould naturally conclude the ſame good management prevailed in all his other houſes: We have lived ſome years in this family of terreſtrial animals, and we may as naturally conclude that the ſame beneficence which provides ſo amply for their welfare according to their reſpective wants and capacities, extends to every other family of ſentient Beings throughout the univerſe.

14. By this means we may attain as full and clear an idea of goodneſs as may ſatisfy us of a character of benevolence in the diſpoſer of all things: but the evil we likewiſe experience cannot infer a defect of goodneſs, becauſe

becauſe the attributes muſt be perfect and infinite; nor yet an oppoſite character, becauſe our cleareſt judgement informs us that contradictory characters cannot ſubſiſt in the ſame ſubject. Therefore we muſt acknowledge evil to be unaccountable, and unaccountable phenomena we never extend further than we can ſee of them. It is poſſible that what portion of evil there is in nature may be confined to the viſible world and lie within the regions of matter, nor need we ſuppoſe it exiſtent elſewhere until further reaſons ſhall occur for the ſuppoſition. At leaſt we may preſume from the character of goodneſs that the quantity of good in the univerſe vaſtly exceeds that of evil, which is enough to give us an inviting proſpect of our condition wherever we ſhall go, unleſs there be ſome unfavourable circumſtances particularly attending ourſelves which make us liable to fear the worſt.

15. As to the perplexities involving our thoughts let us conſider from whence they generally ariſe, and perhaps we ſhall find them not irremovable. We commonly eſteem goodneſs to conſiſt in a compliance with our humours, a parent that indulges us in all our deſires we look upon as ſupremely good, and if we ſhould happen to deſire what is hurtfull ſtill we ſhould think his denial of it a ſeverity. But deſire ordinarily fixes upon preſent ſatiſfaction

faction and ſeldom runs along the whole line of conſequences from whence the real value of things ought to be eſtimated: ſo that we often think ourſelves hardly dealt with at the very time when we are receiving good. But when the trouble is once over and we feel the benefits reſulting therefrom, we can acknowledge that to be goodneſs we once eſteemed hardſhip: and ſo we ſhould have done at firſt had we had a clear diſcernment of the diſtant good and an earneſt deſire for it; for then we ſhould have thought nothing a hardſhip that lay in the way to accompliſh it: ſo that our diſcontents are owing to a miſapprehenſion occaſioned by the narrowneſs of our views.

16. So long as things ſucceed currently to our wiſhes we entertain no doubt of divine goodneſs, while we have the means of gratifying our deſires we find fault with none of the laws of nature, not even that of reſt after labours of the day, although ſleep cuts us off from above a quarter of the enjoyments we might have had could we ſubſiſt without it. A moderate pittance of happineſs contents us if we have no thoughts of anything higher, nor is there a man ſo unreaſonable as to quarrel with the Almighty for making him an imperfect creature, or to think it an impeachment of goodneſs that he has not the capacity and enjoyments of an angel. Since then imperfection

perfection of happineſs in any degree is not repugnant to our idea of goodneſs let us conſider whether this imperfection, although not neceſſarily implying a liableneſs to evil, may not well conſiſt with a mixture of it. For the value of exiſtence depends upon the quantity of happineſs received therein, and every evil is the ſame as a ſubtraction from that quantity: if then the good and evil compared together leave a ballance of the former, which if given alone, would be ſufficient to denominate the creature happy, and be thought a gift becoming infinite goodneſs to beſtow, why ſhould not both together be thought ſo too ſince they are of equal value? A ſalary of five hundred pounds a year, chargeable with a conſtant land tax of four ſhillings in the pound, is equal to four hundred without that deduction: and if a friend put you in a way of making a thouſand pounds by laying out four hundred, you would think yourſelf as much obliged to him as if he had helped you to a clear ſix hundred. So if there be a profuſe abundance of happineſs together with a ſmall mixture of ſuffering diſtributed throughout the univerſe, the condition of the creatures is as valuable as if the net ballance of the former had been given alone: but this would have been thought to denominate the giver infinitely good, why then ſhould the

the ſtate of the world as it is occaſion any doubts to the contrary.

17. Much of our good ſprings out of evil, for objects exciting pleaſant ſenſations rarely occur, but tis the amuſement we find in the exerciſes of our activity and the engagement of our purſuits that furniſh us with moſt of the enjoyments of life, and tis the deſire of delivering or guarding ourſelves from ſomething we do not like, that chiefly prompts us to beſtir ourſelves: ſo that if there was no ſuch thing as danger, want or ſatiety, we ſhould have little to do and life would become inſipid for want of employment. Nor does our reflection upon the good we poſſeſs contribute leſs than the pleaſures we actually feel to that complacence of mind which renders life deſirable, but this reflection ariſes principally from the contemplation of thoſe evils from which we are exempted: it has been conſtantly obſerved that we know not the value of bleſſings until we loſe them, and thoſe who meet with nothing to ruffle them are ſcarce ſenſible of their happineſs. For as a foil ſets off a beauty, ſo the diſappointments we have experienced or diſtreſſes we behold others labour under gives us a juſt eſtimation of our preſent good fortune. When we turn our thoughts to thankſgi[illegible] generally find them run upon topics [illegible]

that are ſupplied, diſtreſſes that are relieved, dangers from which we are ſecured or miſchiefs from which we are exempted: nor can we ſcarce bring our minds to thank God for the air we breathe becauſe it is ſo common, or for the conſtant returns of ſpring and ſummer, of morning and daylight, becauſe we never miſs them; and when we do diſcern the value of theſe things it is by reflecting on the forlorn condition we ſhould ſtand in without them. A reſcue from ſome imminent danger gives a ſtronger apprehenſion of kindneſs than a thouſand good offices, and pleaſure never comes ſo welcome as when preceeded by pain; nay eaſe alone after deliverance from trouble affords a joy that ſatisfies the mind without any of thoſe amuſements neceſſary to content us at another time: moſt of our vexations make us ſome returns of this kind, and many of them perhaps greater than the uneaſineſs they gave us while preſent. The complicated machinery of our body, conſiſting of ſo many tender veſſels and fibres liable to a thouſand diſorders yet preſerved many years entire and unhurt, the variety of neceſſaries requiſite for our food, our cloathing and our accommodation, yet continually ſupplied from innumerable quarters, fill us with a higher idea of the divine wiſdom, care than we could otherwiſe have entertained.

entertained. Thus want, weakneſs, imperfection and evil, tend to diſplay goodneſs, and without them we ſhould ſcarce have known what it was: ſo that whatever joy and ſolace we receive at any time in contemplating the divine goodneſs, we owe to that mixture of evil falling within our notice.

18. Having ſatisfied ourſelves by theſe and many more the like conſiderations which our experience may ſuggeſt, that there is a character of goodneſs in the Author of nature, let us now examine what we may conceive agreable or repugnant to ſuch character, this being our only guidance to judge of matters not falling under our immediate obſervation and experience: and we ſhall find theſe two inferences naturally follow from our idea of goodneſs. That the proportion of good muſt greatly ſurpaſs that of evil in the univerſe, and That good is given for its own ſake but evil never ſent unleſs as a means productive of ſome greater good. The former of theſe concluſions may give us a favourable proſpect of nature in general, and the latter may yield us comfort in particular ſeaſons of trouble. For we may conſider evil as a tax impoſed, not to feed the avarice and ambition of the great, but for the ſupport and exigencies of the government; and though we do not always ſee the uſes for which it is wanted,

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yet we may reſt aſſured of the application being in good hands, and that no more is levied than will be diſpoſed of to the advantage of the community: therefore we may look upon every payment as a purchace of ſomething more valuable than the price that is paid for it, or as a call for money to be improved at intereſt upon the beſt ſecurity. Whoever can poſſeſs his imagination with a lively ſence of ſuffering being a purchace, and this ſeems not impoſſible to be effected by a due and habitual reflection upon the nature of goodneſs, will be ſo far from being diſturbed at the weight or ſharpneſs or continuance of the miſeries he ſees among mankind, that he will regard it as an evidence of ſome unſpeakable enjoyment lying in ſtore, which infinite goodneſs judges worth the purchaſing at ſo high a price. Nor need it ſtagger him to reflect that ſuffering is ſometimes inflicted for a puniſhment of wrong doing, for we have ſeen in the laſt volume that a righteous man will never puniſh unleſs with a view to ſome greater advantage accruing therefrom: ſo that even puniſhment may be looked upon in the light of a purchace. Neither can this repreſentation of it give an encouragement to do wrong for the ſake of purchaſing that greater advantage, for beſides that perſons inclined to catch excuſes for doing wrong are not likely to attain the perſuaſion abovementioned,

abovementioned, the purchace in caſe of puniſhment either redounds to the benefit of others, or conſiſts in an exemption from thoſe worſe puniſhments which impunity would draw upon the delinquent.

19. Since then we find the eſtates of happineſs in this ſublunary kingdom ſubject to taxes we muſt take the whole together, the rents and profits together with the diſburſements. Or ſince evil is ſo interwoven with good that one cannot be had without the other, we muſt not pick out ſingle threads but regard the whole contexture as one piece, and in this light it will appear that every diſpenſation is good and worthy divine bounty to beſtow. As to the exiſtence of evil and its being ſo interwoven into the fortunes of creatures, we can do no otherwiſe than refer this to ſome unknown attribute. For as has been obſerved before, the little we know of God being drawn from thoſe few of his works lying within our cognizance, we cannot expect they ſhould diſcover the whole of his nature, but there may probably be other attributes belonging to him of which we can entertain no conception. We have already found the neceſſity of ſome ſuch in the article of omniſcience: for though wiſdom may diſcern what capacities and ſtations are requiſite for contemplating the grand deſign in view,

view, it cannot determine what particular ſubſtances ſhall have ſuch or ſuch capacities, or occupy ſuch or ſuch ſtations preferably to any others. So upon the preſent article we have found it repugnant to our notions to ſuppoſe either that infinite bounty could ſtop until there was nothing further to beſtow, or yet that creatures ſhould be raiſed to the perfection and ineffable happineſs of their creator. Therefore we muſt neceſſarily conclude there is ſome other attribute to moderate between goodneſs and omnipotence, to ſet the proper limits of imperfection aſcertaining how near it may approach towards perfection and what diſtance it muſt always keep therefrom, and to be the origin of evil: with all which we need not perplex our thoughts either to raiſe doubts or attempt diſcoveries concerning them, ſince they ſpring from a ſource whereof we can have no comprehenſion.

CHAP. XVII.

EQUITY.

IF this ſhall appear a novel title, it is ſo no otherwiſe than by making that a ſeparate article which uſes to be included under a more general term: Equity being a ſpecies of Juſtice, which has always been aſcribed to God in the moſt perfect degree. For juſtice is commonly divided into diſtributive and commutative, and though the latter epithet be not properly applicable to the proceedings of God with whom we have nothing to commute in return for the bleſſings received at his hands, yet neither do all our dealings with one another relate to matters of exchange or ſuch wherein our own intereſts are concerned. In apportioning the cares of a parent among his children, the protection afforded by a prince to his ſubjects or countenance given to his ſervants, there are certain rules which a juſt man will obſerve, and theſe belong to that branch of juſtice uſually ſtiled the commutative, nor can we conceive the like rule of equity diſregarded by him who is righteous in all his ways.

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2. This attribute ſeems the eaſieſt of any to our comprehenſion, for it is no more than a perfect impartiality inclining God to be good alike to all, and to ſpread his mercy over all his works. It involves us in none of thoſe difficulties we met with before on contemplating omnipotence, omniſcience and infinite goodneſs, which we cannot well conceive either with or without bounds. For the opportunities of ſucceſs given to one man muſt be poſſible and may be afforded to another; nor can wiſdom want methods of bringing about events ſimilar to thoſe it has already contrived, nor do we ſee any hindrance that whatever meaſure of bounty is thought proper for the creatures may be diffuſed equally among them. And it is agreable to our notions of God that it ſhould be ſo, for his bounty is pure, unexcited by objects, but flowing ſolely from himſelf, and we naturally expect that the ſame cauſe ſhould produce the ſame effect wherever it operates, unleſs by reaſon of a difference in the ſubjects: but there could be no difference of one man from another in their ſtate of non-entity, what difference lies between them was of God's making, and if he has been more ſparing of his favours to ſome, we may preſume he will make them amends upon another occaſion. Nor can we fail of being confirmed in this

notion when we reflect what it is that makes men partial or unequal in their good offices; we perform them to thoſe from whom we expect the like return, or in gratitude for ſervices done us, or to gain credit and reputation in the world, or for relation or intimacy ſake, or becauſe their humours ſuit with our own, becauſe we find a pleaſure in their company, or have taken a favourable liking to their perſons: but the more a man improves in reaſon and virtue the more equal we find him in his ſentiments and behaviour towards thoſe with whom he has intercourſe. Thus we find the ſeeds of partiality in wants and weakneſſes of human nature, none of which can have place in the Divine. I ſhall not preſume to limit the authority of God or ſet up a claim to the like proportion of bleſſings that others enjoy; for we are the work of his hands and he has not only full power but lawfull right to diſpoſe of us as he pleaſes, to beſtow a larger meaſure of his bounty upon one and leſs upon another: but the queſtion here, as before in the caſe of goodneſs, is not what the creature has a right to expect but how our idea of the diſpenſer of all good things makes it likely he ſhould deal with us. And for my part, when I conſider the nature of pure unmerited love, I can ſee nothing that ſhould cauſe it to make a difference in objects where

thoſe

thoſe objects have not a prior intrinſic value. Therefore we may abide by our theory and conclude the love of God extended in equal meaſure to all who are objects of it, until we ſhall find our theory corrected by experience.

3. But it may be thought experience does contradict our ſuppoſition by the very unequal diſtribution of good and evil we ſee prevailing among mankind: ſome abound in ſuperfluities while others want even the neceſſaries of life, ſome enjoy exuberant health while others ſtruggle continually with diſtempers and infirmities, ſome encreaſe knowledge without meaſure while others ſcarce know their right hand from their left. Fortune, honour, accompliſhment, ſucceſs and eaſe, take up their abode with a choſen few and leave the reſt of the world to labour, trouble and anxiety. But in the firſt place let us examine the conditions of men narrowly and we ſhall find them not ſo very unequal as may appear at firſt ſight, for there are many unobſerved joys and vexations which we do not take into account; therefore we are very bad eſtimaters of happineſs, for we judge of it by our deſires which faſten upon intenſe pleaſures and run eagerly after thoſe things which would give us the greateſt joy in the acquiſition or the moſt pungent ſorrow upon

loſing them: but 'tis the continual produce of ſatisfaction and complacence yielded by poſſeſſing, not the firſt tranſport on obtaining, that conſtitutes the real value of things. The poor man wiſhes for riches, the diſeaſed and weak for health and vigour, the ignorant for knowledge, and ſuch as are poſſeſſed of thoſe advantages would think it a grievous misfortune to loſe them: ſo that it is acknowledged by the conceſſion of all that they are better had than gone without, nor can it be doubted that the giving of them would cauſe extraordinary joy in the receivers and the deprivation of them as great grief and vexation in the loſers. But could we lay open the thoughts of thoſe who have been uſed to either fortune without having ever known the oppoſite and penetrate into their ſentiments and feelings, we ſhould find that pleaſures grow inſipid and misfortunes light by cuſtom, that wants encreaſe by ſucceſs and content ſprings out of diſappointment, that both have their joys and their vexations, their comforts and their troubles, their amuſements and their diſlikes, their ſatisfactions and their uneaſineſſes, perhaps in nearer proportion than can eaſily be imagined. At leaſt it muſt be admitted that all receive ſome ſhare in the bounties of heaven, and pay their quota to that tax of evil impoſed upon human

man nature. Nor do ſalubrious or peſtilential airs, vernal ſuns or the ſcorching dog ſtar, ſeas or winds, make any difference between high and low, ſtrong and weak, wiſe and fooliſh.

4. In the next place let us remember that notwithſtanding we cannot with all our allowances make the lot of all men exactly equal, the ſpirit will remain entire after diſſolution of the body, ſtill capable of receiving good and evil, of ſatisfaction and uneaſineſs; and tho' all the channels conveying either now ſhould be taken away, we know not what new faculties it may acquire or what materials may be provided for exerciſing them in the world whereto it is going: ſo that we can no more pronounce upon a man's lot by that ſmall period of his exiſtence within our inſpection than we can upon his enjoyment of life by ſeeing him paſs a ſingle day. For what was wanting here may be made up in another ſtate and what was redundant may be retrenched. Wherefore our experience is too imperfect to warrant our altering the theory of this attribute which is the cleareſt of any to our conception.

5. A little obſervation may ſhow us how naturally men's reaſon leads them into an opinion of the Divine Equity. Such as do not much exerciſe their reaſon conceive of

God as having his favourites and his averſions, becauſe they have ſo themſelves and value themſelves upon it, for we form our idea of God upon the model of what we eſteem moſt excellent in ourſelves: but thoſe who practiſe thought and conſideration ſee that an equitable temper is a commendation in a mans character, and conſequently aſcribe it in the moſt eminent degree to that Being which is the fountain of perfection. Therefore the unequal diſtribution of good and evil upon earth has always been made an argument to prove a future ſtate, that the account might be ſet even there which was left unſettled here: and opinions have been embraced without other foundation than becauſe they were thought neceſſary to reconcile the different lots of men with the perfect equity of that power by whom they are diſpoſed. Xavier, the great apoſtle of the Jeſuits, taking for granted that the only way to happineſs lay thro' the Roman church, and yet being ſenſible that thouſands are born and die without ever having an opportunity of being admitted into it, aſſerts poſitively that every Tartar and ſavage has a revelation of the Romiſh faith made to him in the very article of death. He could have no evidence to ſupport this aſſertion, for who knows what paſſes in the departing ſoul after it has loſt the uſe of ſpeech by which it might declare

declare what it felt to the ſtanders by? but he had recourſe to this wild imagination as the only way to ſalve that equity which he could not but acknowledge muſt deal alike favourably with all and propoſe the terms of happineſs to every human creature. To this cauſe likewiſe we may attribute the invention of a freewill of indifference, that men may make their fortunes unequal where the favours of heaven beſtowed on them were equal; as a child for whom the father has made an ample proviſion with the reſt of his brethren may yet run himſelf into poverty by his own extravagance: but if the Will were conſtantly determined by motives, it was thought the lot of every one muſt depend upon what motives were furniſhed. Since then we have the concurrence of the ſober and conſiderate part of mankind in behalf of this doctrine of God being equitable and alike good to all his intelligent creatures, and we find men ſo firmly rooted in this perſuaſion as to practiſe all contrivances to bring their particular tenets to coincide with it, we need make no ſcruple of ranking equity among the attributes and uſing it as a principle whereon to build what judgement we can concerning the conſtitution of things unſeen.

6. Theſe are all the attributes whereof we have any diſtinct knowledge or conception, and

and I call them primary as being eſſential to the Divine Nature. Nor let it be thought an omiſſion that I have taken no notice of Juſtice, Purity, Majeſty and Holineſs, which have always been eſteemed attributes equally with thoſe before mentioned: but I look upon theſe as ſecondary attributes not ariſing from contemplation of the Divine Nature conſidered in itſelf, but in conjunction with the nature of man and conſtitution of things in the univerſe; upon which I ſhall want to make ſome further obſervations before I can explain my thoughts concerning them. Therefore ſhall poſtpone the conſideration of theſe ſecondary attributes for the preſent, and hope it will be left to me to chooſe the proper time for entring upon it acording to the courſe wherein my reaſonings ſhall carry me.

CHAP. XVIII.

Two Characters in God.

WE are told that no man can ſee God and live, by which I do not apprehend it neceſſary to underſtand that the ſight of

of him is ſo terrible as to deſtroy us, but that our faculties are incapable of a full diſcernment of him: ſo that no man can ſee God while he lives encumbred with this veil of fleſh, nor until inveſted with a finer organization or enabled to ſee intuitively even as alſo he is ſeen. And we have found this truth exemplified upon our enquiry into the attributes: we ſaw clouds and difficulties gather around us and diſcovered a neceſſity of other unknown attributes whereof the underſtanding of man has never yet received a glimpſe, to furniſh objects for infinite wiſdom and ſet the meaſure to infinite goodneſs. On the other hand we may be ſaid to ſee God continually before our eyes: our own exiſtence and that of the objects we behold lead us to the knowledge of his Being, the curious ſtructure of our bodies, the wonderful agility and variety of ideas in our minds declare his wiſdom, the bleſſings poured daily around us manifeſt his goodneſs, the ſun that rules by day, the ſtars that twinkle by night, the vaſt expanſe of heaven diſplay his power and greatneſs.

2. Since then God is incomprehenſible and the thought of him an unfathomable abyſs where the line of reaſon can feel no bottom, yet at the ſame time an object obvious to our notice and which it is highly incumbent upon

upon us to purſue ſo far as our faculties can reach with clearneſs, let us endeavour to ſeparate what we find clear in our conceptions of him from what is dark and myſterious. And I believe this may beſt be done by conſidering him in two capacities, as Creator, and as Governour of the world: for creation being a matter whereto we find nothing ſimilar in our experience, we have no idea of it nor any thing belonging to it. We know that ſubſtances owe their exiſtence and properties to an almighty power, but in what other manner they might have been created or what others might have been added to their number or whether any or what inducement there was for creating them, we know nothing of. All the difficulties before ſtarted concerning abſolute impoſſibilities, the neceſſity of previous objects to ſerve as materials for wiſdom to work upon, the limitation of goodneſs, and origin of evil, relate to the firſt conſtitution of things; from which we had better withhold our thoughts, for the further we puſh them, the more we ſhall find ourſelves entangled in perplexities and contradictions.

3. But the governance of the world lies nearer to our apprehenſion, as proceeding upon a conſtitution of things already eſtabliſhed, diſpoſing and giving motion to ſubſtances

ſtances according to the properties aſſigned them, ordering the laws of nature and directing events falling under our cognizance, and by various ſtructures or combinations, either of matter alone or in conjunction with ſpirit, raiſing ſecondary qualities perceivable by our ſenſes. For our own volition being determined by motives, and our actions conſtantly aiming at ſome purpoſe ſuggeſted either by fancy or judgement, we have no conception of a power exerted without previous objects to direct and guide it: which has given riſe to the notion of a nature of things eternal and unalterable by any Will or power whatſoever, But we may eſcape this abſurdity and bring our ideas to tally with one another by conſidering a Governour of the univerſe, working upon a nature of things already aſſigned him and acting according to certain rules eſtabliſhed by the Creator from everlaſting. I am far from intending hereby to divide the Divine Unity or deny that it is one and the ſame God which created and ſtill governs the world: I only propoſe this as an imaginary diviſion rendring the ſubject more ſuitable to our narrow faculties, which may comprehend in part what they cannot compaſs entire. Nor do I ſee any hurt in imagining that to be two which we know to be in reality one, for we have obſerved formerly

that

that our conceptions often vary from our knowledge, and may find further occaſion hereafter to ſhow that it is expedient they ſhould do ſo. We conceive the Sun to run his race every day through the heavens tho' we know the fact to be otherwiſe, for it is more convenient to ſpeak and think of that ſeemingly little orb as moving about, and the wide ſtretched earth with all the buildings and mountains upon it as ſtationary. And ſo I apprehend it more convenient for our imagination to conceive the world and affairs of men adminiſtered by one power limited and preſcribed to by another.

4. The Creator dwells in unacceſſible light, where the eye of man cannot approach or ſees little diſtinctly, being dazzled by the bright effulgence. We know that he is almighty, ſelf-exiſtent, uncauſed, without beginning and unſpeakably happy, and this perhaps is all we can affirm ſafely concerning him: unleſs that to him belong thoſe unknown attributes of which we can ſay nothing more than that there are ſuch. He has eſtabliſhed ſome things ſo firmly that their exiſtence ſeems almoſt as neceſſary as his own: Time and Space, the imperfection of creatures, the relations between numbers, lines, angles and forms, we cannot conceive ever to have had a beginning. His ways are unſearchable

unſearchable and his actions paſt finding out, therefore it is in vain to attempt accounting for his proceedings: We ſee there are ſubſtances around us, but why they were created in ſuch numbers and no more or with ſuch particular properties and no others or in ſuch certain ſtations, why our ideas are variable and the face of nature continually changing, why predictions are formed and events brought about by a long chain of ſecond cauſes and not by an immediate exertion of omnipotence, why evil was intermingled among the good or in what exact proportion; of all theſe points we are utterly ignorant. Nor can we know any more concerning the time than the manner of creation, or determine whether the creatures may not have been co-eternal with the Creator: for tho' they be effects requiring an efficient cauſe to produce them, yet an effect may well be eternal where the cauſe is ſo. I could eaſily believe the Thames to have run eternally if I could perſuade myſelf that the ſprings ſupplying it had flowed for ever: and if there had always been a Sun there would have been no beginning of daylight. So tho' the creation depended upon a ſuperiour power for its exiſtence, it may nevertheleſs have ſubſiſted from everlaſting, becauſe that power was never wanting whereon it might depend.

Nor

Nor let it be urged that the Will and good pleaſure of God muſt ſet omnipotence at work before there could be any thing created: for when we reflect on the immutability of the divine nature, we can no more aſſign limits to the determination of his Will than to the exerciſe of his power. Therefore it behoves us to know our own ignorance, for this is the ſtrongeſt mark of ſuch wiſdom as the frailty of human nature can riſe to: as it is an inſtance of folly to conceit oneſelf underſtanding every thing and to decide confidently upon every ſubject. And if we be at all ſenſible of our ignorance we ſhall be very cautious in our aſſertions concerning creation or the Author of it, eſteeming him an object of our admiration and adoration rather than of our enquiry. Nor need we be diſturbed at the want of further knowledge, which could avail us nothing if we had it; for we muſt take things as we find them, our capacities and the qualities of other ſubſtances affecting us as aſſigned them, nor can we expect they ſhould be altered to pleaſe us. If we know what are proper for our uſes, how ſhould we be the better for knowing why they were ſo conſtituted? If we can diſcern the ſources of good and evil, this is enough to direct us what to purſue and what to avoid, nor could we do it more

effectually

effectually were we able to trace thoſe ſources up to their original cauſes. Beſides, when the Creator had laid the foundation of nature he reſted from his works, and having once made us, retained, as I may ſay, no longer any concern with us, but delivered us over to that Providence which governs and diſpoſes the things already created, exerciſes the capacities and employs the qualities already aſſigned.

5. But the Governour of the Univerſe is a more diſcernible object, eaſier for our imagination to comprehend, cloathed with milder rays of glory, the ſubject of our hope and confidence as well as of our admiration. For we may behold him provident, wiſe, gracious and beneficent, protecting us againſt the confuſion of Chance and hard hand of Neceſſity, having all nature under command ſo that no diſturbance or diſorder can intrude againſt his liking. To him belong thoſe attributes of which we can form any diſtinct notion: omnipotence to give what motions and directions he pleaſes to ſubſtances, to change their ſituations and throw them into what combinations or aſſociate them with what company he thinks proper: omniſcience to diſcern at one glance the whole number of ſubſtances exiſtent, their capacities, qualities and poſitions: wiſdom to

know exactly what ſecondary qualities will ariſe and what effects ſhall be produced by the operation and concurrence of ſecond cauſes, ſo that among all the various impulſes of matter and actions of ſpirit nothing ſhall fall out contrary to his deſign and expectation: omnipreſence that nothing may eſcape his notice, but every particle of corporeal or ſpiritual ſubſtance be directed with the ſame vigilance as if it were the ſole object of his attention: unwearied goodneſs to provide all the happineſs for the creatures which their capacities can receive or the preeſtabliſhed nature of things will admit, and impartial equity to allot the juſt proportion of good and evil among ſentient creatures, ſo as that none may have cauſe to complain at being unequally or arbitrarily dealt with. Theſe things we find no difficulty to comprehend, and theſe are enow to aſſure us that the courſe of nature and fortune is ordered for the beſt, and that we live under a government which a prudent man would chooſe for himſelf if it were left to his option.

6. To conſider God as Governour of the world is the light wherein we ordinarily behold him, that which gives us the cleareſt conception we can entertain of him, which beſt anſwers all uſefull purpoſes, and has this peculiar advantage that it repreſents his goodneſs,

neſs, the attribute we are moſt intereſted with, in the faireſt colours, as attentive to produce all the happineſs poſſible for his creatures in the nature and conſtitution of things. This when well inculcated ſatisfies the minds of the vulgar, and would ſatisfy thoſe of the ſpeculative too if they would abſtain from idle queſtions concerning creation, and forbear to aſk why things are not otherwiſe conſtituted ſo that more happineſs might have been produced than is now poſſible. For if we ſurvey ſo much of nature as lies within the reach of our obſervation and reaſon, we ſhall find there is a balance of good ſufficient to content any reaſonable perſon.

CHAP. XIX.

External Nature.

BY Nature I underſtand here that diſpoſition and order of things wherein we are likely to have any concern; ſo much of this as relates to ourſelves in our preſent ſtate of Being, we muſt diſcover by obſervation and experience, or learn from the information of others, as being our ſureſt guides: for

no man who is going to the Eaſt Indies, recurrs to theology to know what manner of living he may expect, but enquires of thoſe who have been there before him; or if he find himſelf indiſpoſed, applies to a phyſician, or recollects what has done him good on the like occaſion formerly. But we know that this body of ours ſhall be diſſolved, when whatever was of uſe or ſolace to it, ſhall be no longer ſerviceable: though the trees continue to bear fruit we cannot taſte it, though the Sun goes on to ſhine we cannot ſee it, though trades and manufactures be ſtill carried on we can receive no benefit from them. Yet the Spirit ſhall remain entire with her two faculties of perceptivity and activity, but what organs, what inſtruments, what materials, ſhe ſhall have to exerciſe them, experience informs us nothing of: for we have no ground to expect that anything wherewith we have intercourſe here, ſhall be the object of our perception or action hereafter. Nevertheleſs our curioſity and concern for the future naturally incline us to look forward, but we find nothing affording any glimpſe of light unleſs in the character of that power which diſpoſes of things viſible and inviſible: therefore we muſt content ourſelves with ſuch judgement as we can form from thence of our future condition and expectations.

2. And

2. And this leads us to the conſideration of final cauſes, which the moſt judicious perſons have always taken into account and made the principal foundation in forming their opinions concerning things inviſible: for if at any time we can diſcover what are the views of our Almighty Governour, we may reſt aſſured he wants not power nor wiſdom to compaſs them. Some indeed carry this argument too far, applying it to the affairs of this world and inferring what is or ſhall be done from what they imagine ſhould be done. Thus the Papiſts prove an infallible judge of controverſies upon earth, becauſe they conceive it neceſſary there ſhould be one: and many good people expect deliverance from all diſtreſſes and injuries, or that in wars and contentions the better cauſe will always prevail, becauſe they apprehend it agreable to their idea of God that things ſhould be ſo ordered. Our murmurings and repinings againſt Providence ariſe from our unwarrantable expectations, which upon finding them diſappointed tempt us to ſuſpect the ways of heaven unrighteous rather than acknowledge ourſelves miſtaken in our idea of what righteouſneſs requires. But our buſineſs here is to learn, not to decide, nor can we ever depend upon what will happen ſolely by our idea of final cauſes, nor otherwiſe than by remarking what has uſually

in ſimilar caſes: for our knowledge of God and his proceedings is very imperfect at beſt, and he has given us experience and a capacity of obſervation to correct our errors in theory from time to time. But with reſpect to the inviſible world he has given us no experience nor means of obſervation; if we were ever there ourſelves we have utterly loſt all remembrance of it, and thoſe who are gone there before cannot return to communicate their diſcoveries: but he has given us ſome knowledge of himſelf diſcoverable in the portion of his work we have ſeen, and this we may depend upon in matters whereof we have no other evidence to direct us; for we need not doubt that he knows how to adapt his means to their intended effects, and therefore may be aſſured the knowledge we have is ſufficient to anſwer our purpoſes, until we ſhall find him imparting further lights. Tis true we cannot enter into the counſels of God nor diſcern his manner of proceeding with the ſame exactneſs and certainty as we can the qualities of bodies and characters of perſons familiar to our acquaintance; but we may reaſon upon them in many caſes with a clearneſs that ſhall work as full aſſurance upon the mind to the excluſion of all doubt as even experience or demonſtration: provided we keep chiefly in generals and do not enter too minutely into

to particulars, which we have no opportunity of knowing nor are neceſſary to be known by us.

3. Our own final cauſes lie behind each other in trains, for we deſire one thing for its tendency to procure another and that other becauſe it conduces to a third, but good or ſatisfaction ſtands at the end of every line recommending the whole to our purſuit: nor otherwiſe can we conceive of Providence than as aiming its diſpenſations at particular purpoſes productive of others and thoſe again leading to others beyond: the buſineſs then is to ſettle with ourſelves what we may reaſonably ſuppoſe to be the point, anſwering to ſatisfaction in ourſelves, wherein all diſpenſations ultimately center. For we may immediately diſcern that this cannot be ſatisfaction, ſuch as operates upon us, for the deſire of ſatisfaction implies a continual want of ſomething to better our condition, to make our lives valuable and prevent our time from paſſing away unprofitably: but our cleareſt apprehenſions of the Deity will not allow us to imagine him wanting anything of his creatures, or capable of acceſſion to that happineſs he enjoys from everlaſting in himſelf, or adminiſtring the government of the world for his own amuſement, to paſs his time more agreably, to provide company for his converſation or produce

pleaſures from whence he might receive a moments entertainment. This conſideration over throws the ſuppoſition of Glory, which ſome have made a predominant attribute and ultimate end of the divine views, for they ſay God created and ſtill orders all things ſolely for his own glory. But when we conſider that a fondneſs for applauſe is a weakneſs in human nature, engendring pride, vanity and affectation, which denote a little mind, that the ſounder a man's judgement is, the leſs ſollicitous we find him to diſplay his accompliſhments to others, and that honour at beſt is but an expedient to ſupply the ſhortneſs of our views and lead us into thoſe courſes which we want diſcernment to ſee the prudence of, we ſhall think it unbecoming to aſcribe this motive to the moſt perfect of all Beings, with whom there can be no weakneſs or frailty, no concern leſt he ſhould miſs his due tribute of praiſe, no loſs or diſappointment if it be not regularly paid. Nor do the phenomena of nature agree with the ſuppoſition of ſuch a principle, for of all the innumerable variety of creatures upon earth man alone is made capable of acknowledging his Maker, and among men how few are there that riſe to conceptions worthy of him! far the greater part being drawn off by their occupations and neceſſary engagements

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in life from that attention they might elſe have given to his excellencies, and thoſe few beſt furniſhed with opportunities of knowing him, how imperfect is their knowledge! perplexed with doubts and difficulties which they are forced to ſolve by their own incapacity and want of diſcernment. Nevertheleſs I do not deny that God is extremely jealous of his glory and does all things for that end, becauſe he knows his glory is of the utmoſt conſequence to his intelligent creatures: for entertaining unworthy notions of him would fill them with darkneſs and deſpair, lead them into vices and fatal errors, induce them to break thoſe laws he has eſtabliſhed for their happineſs and introduce a general diſorder and confuſion: ſo that glory is a ſecondary end ſubſervient to goodneſs, not an original principle but ſpringing from the love he bears to the works of his hand.

4. Wherefore goodneſs remains as the ultimate principle beyond that of glory, and tho' we have ſuppoſed an unknown attribute to ſet the meaſure to goodneſs and reſtrain it from exhauſting omnipotence, this belongs to the Creator whoſe ways are unſearchable and concerning whom we can pronounce nothing ſafely: but the Governour of the univerſe we may apprehend as infinitely good, and if there ſhould be any higher

higher ſource of his actions we cannot trace it out, therefore muſt refer to this as the firſt motive of all his diſpenſations, and if there be any thing repugnant to goodneſs we may be ſure it will not be permitted. For we may conceive him producing all the happineſs poſſible in the nature and conſtitution of things: only we muſt not expect his goodneſs ſhould regard ourſelves alone, for the nature of it requires it to flow where the greateſt numbers may receive benefit by it, where there are the higheſt capacities for enjoying it, and where it may be attended with the feweſt inconveniences. For we may obſerve that good and evil often generate one another, but tis the whole deſign in view that denominates the action: he that mingles poiſon with a palatable diſh acts maliciouſly, tho' he does all in his power to enhance the preſent pleaſure; and the ſurgeon who performs a cure by ſome painful operation acts kindly, tho' he gives a preſent pain. And ſometimes conſequences of both kinds follow each other in ſucceſſion, but they muſt all be taken into account in order to determine the quality of the action: the phyſician, who ſweetens an emetic for a child, does not act unkindly tho' he entices him thereby to drink that which will make him ſick at ſtomach, becauſe he intends the removal of a

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diſorder by bringing on that ſickneſs. So the ſeverities that befall us, or the pleaſures that lead unwarily into trouble, may be inſtances of kindneſs, if in their whole conſequences they tend to greater advantage than detriment: and that they do ſo, we may juſtly conclude from the character of goodneſs, which requires that every evil ſhould terminate in good ſomewhere or other, and that if there be any which yield no fruits in this preſent ſtate, they ſhould produce a plentifull crop elſewhere which will abundantly repay the trouble ſuſtained by them here.

5. For from the unity of the Divine Nature we may juſtly infer that the univerſe is one immenſe kingdom governed and adminiſtred by the ſame legiſlative and executive power: and tho' this conſideration alone will not hinder but that it may be divided into many diſtinct principalities, each ſeparate within itſelf and having no communication with the reſt, yet when we reflect upon the mutual dependance of things in this world and how much their intereſts are interwoven, we ſhall find reaſon to believe there is a like connection of intereſts running throughout the whole. We commonly ſay that all things were made for man, and ſo we well may provided we do not add, for man alone, but allow him likewiſe to be made for other creatures,

creatures. The ſheep and oxen feed upon his paſtures, the horſe receives provender and tendence from his hands, the birds eat the grain he ſows, the little mouſe ſhares in the proviſions of his table, the ſwallow neſtles under his roof, the maſtiff and ſpaniel earn their wages in his ſervice, the flea and the gnat regale on his blood, the harveſt-bug burrows in his fleſh, and his carcaſe breeds and nouriſhes the worm and the maggot. He employs his cares and reaſon to provide for the uſes of animals ſubſervient to his uſes, and thoſe of others he provides for in providing for his own. And there is a conſtant intercourſe between the animal and vegetable kingdoms: man ſows the corn that is the ſtaff to ſupport his life, plants and prunes the trees that yield him fruit, cultivates the flax that ſerves him for cloathing. The cattle manure the paſtures that feed them, the birds carry about the ſeeds that grow up to ſupply their future occaſions. It is thought the Miſletoe would be loſt out of nature if it were not continually propagated from tree to tree by the thruſh. And every ſpecies of living creatures has an intereſt in the curious ſtructure and alimentary qualities of thoſe plants which furniſh them reſpectively with proper ſuſtenance. Nor are the properties and courſes of the elements, the ſubt[illegible]

raneous works of nature in forming minerals, foſſils, exhalations and vapours, of little conſequence to the things upon her ſurface: the blights that bring diſeaſe upon corn and trees threaten us with famine, that unknown vegetative principle promoting their growth and making the difference between one ſoil or one ſeaſon and another fills us with plenty: the docility and capacities of brutes furniſh employment and uſes for man, the various paſſions and characters of mankind affect one another, and that long and intricate chain of events we call Chance or Fortune determines the time and condition of our birth and influences us in every part of our lives.

6. Thus nothing ſtands alone, but each depends for its preſervation and welfare upon many others around with which it ſtands in ſome reſpect or other connected. From hence we may gather a little more knowledge of nature than we could by a bare contemplation of the final cauſe: for goodneſs would have been equally ſatisfied whether the due meaſure of happineſs had been dealt out to the creature directly by an immediate act of omnipotence, or conveyed by the intervention of ſecond cauſes, or how many ſoever of them had intervened to operate upon one another. But ſince we find that God governs by a long ſubordination of ſecond cauſes in this

this ſpot of nature exhibited to us for a ſpectacle, we may reaſonably preſume he takes the like method in other parts of his dominion. And we may obſerve that he not only employs a concurrence of cauſes to produce one effect, but likewiſe produces various effects from one and the ſame cauſe. The air that ſupplies us with breath aſſiſts the growth of vegetables, ſuſtains the clouds and vapours, and purifies the earth with its continual agitations: the ſea that contains the ſtores of rain and dew, that wafts our ſhips from coaſt to coaſt, ſerves likewiſe as an element for the fiſhes: and there are ſeldom any events befalling among mankind which concern no more than a ſingle perſon. [illegible] hence we may infer the probability of th[illegible] being other uſes in the works of nature beſides thoſe we diſcern, much more that there are uſes where we cannot diſcern any.

7. It is this manner of proceeding by ſecond cauſes that diſcovers the divine wiſdom, which could not ſo well be manifeſted by a direct exertion of omnipotence: the raining Manna from heaven might diſplay power and a kind concern for the wants of mankind, but it would not give evidence of wiſdom like the admirable contrivance in a grain of corn, made to protect and nouriſh the tender germ, fitted with little tubes for ſtraining ſuch earthy

earthy particles as are proper for our ſuſtenance. If almighty power were employed at every turn there would be no room for wiſdom, becauſe nothing more would be requiſite than to chooſe what ſhall be done and to do it accordingly: as a man who carries a bowl in his hand wants no ſkill to place it where he has a mind, but if he rolls it along the turf he ought to know exactly the inequalities of the ground and what force and direction muſt be given to make it reſt juſt in the ſpot where he would have it lie: much more when a multitude of cauſes are ſet in motion to produce a variety of effects, does it require a conſummate wiſdom to adjuſt them ſo nicely as that nothing may fall out contrary to intention. And the ſubordination of cauſes gives admittance to ſubordinate ends, wherein we may ſometimes diſcover a wiſdom and contrivance in the manner of compaſſing them, tho' we cannot trace their tendency to the ultimate end: for we may diſcern a curious contexture in the parts of weeds and noxious plants, of toadſtools and moſs, of pyrites and other uſeleſs productions of the earth, tho' we cannot ſee wherein they promote the benefit of any ſentient creature.

8. But

8. But wiſdom cannot be diſjoined from goodneſs, for it muſt have ſome purpoſe to proceed upon, and none other can be conceived worthy of it: it may direct to proper means and ſo far furniſh itſelf with employment in ſupplying other means to procure them, but muſt receive its ultimate end from ſome other quality. Wherefore the moſt conſiderate of mankind have laid down as an unconteſtable maxim, That nature does nothing in vain, by which muſt be underſtood Unproductive of good either directly or remotely, for this would be vain with reſpect to the point it has ultimately in view. And Plato with ſome others carried this notion ſo far as to ſay, that if any ſingle event had happened otherwiſe than it did, the whole univerſe would have been endamaged thereby. Whether we may run ſuch length as to aſſert that every creature has ſome concern in every diſpenſation that happens, there is no occaſion to examine, but our idea of infinite goodneſs warrants us to ſuppoſe that the courſe of nature or fortune could not be altered in any particular without a loſs of happineſs ſomewhere or other: and this ſuppoſition will neceſſarily infer an intercourſe of intereſts between the known world and the unknown. For we find nature often defeated of the purpoſes ſhe ſeems principally to have intended,

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ſhe forms her grains of corn in a manner fitted for producing plants of their different kinds, but how few of them ever attain that end? ſuch as man employs in his uſes make no difficulty, for we ſuppoſe her to have had the ſervice of man in view equally with the continuation of the vegetable ſpecies: but what quantities are deſtroyed by blights, by mildews, by ſtorms, or ſcattered about by accident, where they neither grow up to fill the reaper's hand nor yield a ſuſtenance to any creature! She forms the eggs of birds with curious integuments one within another to foment and nouriſh the growing fœtus: for ſuch of them as man converts to his uſes we think her pains not ill beſtowed, but how many of them are addled, chilled or broken, unprofitable either for the neſt or market! What multitudes of fruits of all kinds fall to the ground, where they decay and periſh without being of ſervice either to man or beaſt! what quantities of fertile ſoil are annually driven down into the ſea! what havock do tempeſts, inundations and earthquakes make as well among the works of nature as of human induſtry! In ſhort there ſeems to be a general waſte around us, a great deal of pains and contrivance thrown away, and half the proviſions that are made fall ſhort of their deſtined purpoſe. If we turn our thoughts to man him-

ſelf we ſhall find, that after all the wonderfull cares of nature to form children in the womb, many of ~~whom~~ them never came to the birth; of thoſe that do one half are cut off by diſeaſes, accident or ill management, before they arrive at the uſe of reaſon. Sleep renders a conſiderable part of our time uſeleſs; many of our waking hours paſs irkſome and inſipid, unprofitable to others and unpleaſurable to ourſelves. Ignorance and error fruſtrate half our undertakings; infirmities, paſſions and fantaſtic humours, make us troubleſome to one another. Such obſervations as theſe have tempted men to deny a Providence, and Lucretius urged it as an argument that the world could not be made in wiſdom being ſo full of faults. But we have too many proofs of a ſuperintending vigilance in the many proviſions actually tending to our preſervation, our ſuſtenance, our accommodation and our enjoyment, to be overthrown by theſe negative ones to the contrary; from which we may more ſafely infer that Providence has ſomething elſe to take care of beſides ourſelves, therefore all cares are not thrown away which do not turn to our particular account.

9. I know that ſuch as ſet themſelves impartially to examine the ways of nature, daily find more and more uſes in things that at firſt appeared nugatory: but ſome of the phenomena

mena are of ſuch a kind as not to be applied with any colour to the benefit of man, and many wherefrom we do receive ſome uſe are of too noble a fabric for us to claim them as our ſole property. Man has no further concern with this earth than a few fathom under his feet, was then the whole ſolid globe beneath made only for a foundation to ſupport the ſlender ſhell he treads upon? Do the magnetic effluvia courſe inceſſantly over land and ſea only to turn here and there a mariner's compaſs? Are thoſe immenſe bodies the fixed ſtars hung up for nothing but to twinkle in our eyes by night or find employment for a few aſtronomers? Is that prodigious effuſion of light darted every way throughout the expanſe of heaven for no other purpoſe than to enlighten and cheriſh two or three little planets? Does the vaſt profundity of ſpace contain no more inhabitants than we ſee crawling about us or may conjecture abiding on other earths like ours? Surely he muſt have an overweening conceit of man's importance, who can imagine this ſtupendous frame of the univerſe fabricated for him alone: and he muſt be too partial an admirer of viſible nature or entertain too mean an opinion of infinite wiſdom, that can perſuade himſelf things could not have been contrived better for the accommodation and happineſs

of man, had he been the ſole object of the divine attention. To conſider only the turns of the human Will which conſtantly follows preſent motives and judgements, would any body deny that man's underſtanding could have been more illumined and his imagination rectified, ſo as clearly to diſcern and ſtrongly to deſire his trueſt intereſts, and this alone might have made a paradiſe upon earth without changing the face of nature.

10. Nevertheleſs we may ſo far acknowledge all things made for man as that his uſes are regarded conjointly with thoſe of other creatures, and that he has an intereſt in everything reaching his notice either for the ſuſtentation of his body, the improvement of his mind, or entertainment of his thoughts. We know he has ſome concern with the remoteſt objects, the Satellites that turn the night of Jupiter into day aſſiſt him in aſcertaining the longitude and meaſure for him the velocity of light: the mighty Sun that like a giant holds the planets and comets in their orbits enlightens him with its ſplendour and cheriſhes him with its warmth: the diſtant ſtars whoſe attraction probably confines other planets within their vortices direct his courſes over the boundleſs ſea and the inhoſpitable deſert, and diſplay the magnificence of that power which ſtationed them. Nor can we

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ſuppoſe him forgotten in the laws reſpecting other worlds, which are ſo framed as not to interfere with his intereſts, or infringe upon that meaſure of good thought proper to be allotted him: for the omnipreſent vigilance of our Governour overlooks nothing, and his wiſdom is ſo conſummate as to form his ſeveral ſyſtems compleat, without their diſturbing or breaking in upon one another.

11. But tis the narrowneſs of our underſtandings, confined to work upon ſuch materials as are thrown in by the ſenſes, that makes it difficult to conceive there ſhould be creatures totally different from thoſe falling under our obſervation for Providence to take care of, and therefore we expect that every proviſion of nature ſhould be calculated ſolely for our uſes. For many ages this little ſpot of earth was thought the only habitable part of the univerſe, nothing elſe being deemed capable of receiving a colony. Xenophanes was laughed to ſcorn for aſſerting the Moon bigger than all Peloponeſus, as an abſurd and extravagant notion: and though later diſcoveries have perſuaded many perſons of the Planets being habitable earths like ours, yet they think no further than of peopling the ſurfaces of them conformably to what we ſee in this of our own, and even

this appears a wild imagination to common apprehenſions, which cannot deviate a ſtep from the track whereto they have been accuſtomed. Epicurus inſiſted there could not be intelligence out of the human ſhape, becauſe he had never ſeen a reaſonable creature of any other: and we cannot comprehend an animal without muſcles, fibres, veſſels and organs, ſuch as we find in thoſe we are acquainted with. I ſuppoſe if we had never known of fiſhes we ſhould have been poſitive that life could not ſubſiſt without air to breathe, or that there could be generation without ſexes if we had never heard accounts of the Polypus. But who can ſet bounds to Almighty power or reckon up all the varieties that infinite wiſdom can contrive, or ſhow the impoſſibility of organizations diſſimilar to any within our experience? Who knows what cavities may lie within the earth or what living creatures they may contain, endued with ſenſes to us unknown, to whom the ſtreams of magnetiſm may ſerve inſtead of light and thoſe of electricity affect them as ſenſibly as ſounds and odours do ourſelves? Why ſhould we pronounce it impoſſible there ſhould be bodies formed to endure the burning Sun, to whom fire may be the natural element, whoſe bones and muſcles are compoſed of fixed earth, their blood

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and juices of molten metals? or others ſuited to bear the frozen regions of Saturn, having their circulation carried on by fluids more ſubtil than the higheſt rectified ſpirits raiſed by chymiſtry?

How does it appear neceſſary that ſenſation muſt come by that long train of channels leading into one another thro' which we receive it? The light ſtrikes upon the corneous tunicle of the eye, thence paſſes on thro' the aqueous, the chryſtalline, the vitreous humours till it falls upon the retina, there it excites tremulous motions, which are propagated onwards in winding mazes along the optic nerves quite to the brain, cauſing it to excite the ſenſation of ſight. The mind receives her notices from particles penetrating or lying contiguous to her, ſuch as their modifications are, ſuch from time to time are her perceptions, and why may not they take various modifications from the action of external objects without that tedious proceſs of organization employed in terreſtrial animals? Hartley and ſome others pretend to demonſtrate that ſenſations and all our ideas are produced by an ether lodged in the interſtices of our brain: if the caſe be ſo, when diſengaged from the groſſer parts of our machinery, we ſhall have a denſer ether ſurrounding us, which might excite ſtronger ſenſations and of other kinds

than any we now experience. May there not be bodies fitted for the purpoſes of ſenſation and reflection, conſiſting of ſimpler organs and lying within a narrower compaſs than any thing we can imagine, all eye and ear without, all memory and underſtanding within, ſmall enough to permeate the denſeſt metals with the ſame eaſe as we walk about in a grove of trees, too minute for wind to take hold of or fire to penetrate and rend aſunder, which may expatiate in the boundleſs fields of ether and find a pabulum there to ſupport them, or have ſuch contexture as not to be liable to continual waſte and conſequently needing no recruit? Or who will undertake to demonſtrate that ſpirits may not act and perceive without any organs at all, finding objects for one faculty to diſcern, and ſubjects whereon to exerciſe the other, in the particles paſſing perpetually through the ſphere of their preſence? or that they may not affect one another with perceptions in greater variety and vigour than we receive them from the play of our organs? not vitally united to any ſyſtem of matter, but joining themſelves occaſionally to whatever falls within their reach, whereby, if locomotion be expedient, they may tranſport themſelves eaſily from place to place; for conſidering the ſwift and inceſſant fluctuation

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of many ſubtil fluids in all directions, they need never want a conveyance to carry them whitherſoever they deſire.

12. Tis true theſe are all no more than poſſibilities, nor do we pretend to bring evidence in proof of their being fact; but the ſuggeſtion of a poſſibility which cannot be contradicted is enough to convince us that we have not the whole extent of almighty power in our view, nor all that nature can perform exhibited in the ſcenes ſhe has diſplayed before us: for we find there are other ways of proceeding feaſible, and if ſhe has choſen none of them, it may be becauſe ſhe has ſtill others in ſtore whereof we cannot form the moſt diſtant imagination. But that ſhe has other methods of ſupporting life and diſpenſing enjoyment unknown to us, we may ſatisfy ourſelves from the vaſt profuſion of ſecond cauſes ſhe puts in act, yeilding no proportionable benefit to the reptiles on this lump of dirt nor any others we can reach with our glaſſes or our conjectures. So that in our Father's houſe are many manſions, many not only in number but in variety of plan and diſpoſition, built partly of the ſame kind of ſtone and timber, but fitted up diverſly according to the occaſions of the reſpective inhabitants, and ſerving for little elſe than ornament to the reſt. Since then

then there are mighty works fabricated which contribute little to our uſes, but we muſt conclude from the principle of nothing made in vain, that they contribute more largely to thoſe of other creatures, this evidences a connection between the two worlds in having ſo many things the benefit whereof they ſhare in common. Nor is it probable only that the ſeveral ſyſtems of Beings have partly the ſame materials ſupplying their conveniences and enjoyments, but likewiſe that their actions in the conſequences of them mutually affect one another. It were meer gueſs work to go about explaining in what particulars this happens, all that we can pronounce aſſuredly is that we are equally incapable of diſcerning whether what paſſes among other Beings does or does not concern the affairs of men: whether as toads and adders ſuck up the poiſon from the earth, there may be ſome inviſible animals which purify the air, or elſe prepare it for our reſpiration as milk is prepared for our nouriſhment by paſſing through the bodies of cattle; whether the emiſſion of rays from the Sun be owing to the action of ſome creatures upon its ſurface; or whether the miniſtry of ſubſtances purely ſpiritual be employed in the four attractions and putting other laws of matter in execution.

13. But

13. But there is one reſpect wherein it cannot be doubted that other Beings have concern in what happens among us. Whoever admits the doctrine of final cauſes and nothing made in vain, will ſcarce imagine that our two faculties of perceptivity and activity were given us only for a few years employment upon this ſublunary ſtage, to lie buried ever afterwards in eternal ſleep, but that the ſoul upon quitting this country paſſes into ſome other, whoſe diſtricts are continually peopled by colonies ſent from hence. Now when we reflect how much the births and deaths of human creatures depend upon the conſtitution of nature and diſpoſition of affairs here, how men encreaſe and multiply more or leſs and their lives are lengthened or ſhortened by the condition of the air, fertility of the ſoil, concurrence of accidents, regulations of ſtates, introduction or decay of arts and ſciences, manners and cuſtoms, humours and fancies, virtues and vices, prevailing among them, it will appear that the inhabitants of the other world are intereſted in all theſe things, to have them ſo diſpoſed as that our annual exports may juſt anſwer their demands. Nor is it likely they are concerned only with the numbers and times of our migrations, but likewiſe with the qualities and characters of the new comers to be incorporated amongſt them.

them. We ſee that nature forms none of her productions at once, but brings them ſlowly to perfection by many gradations riſing upon one another: the ſeed ſhoots up a little bud, from thence ſprings forth a ſlender twig, which by degrees hardens into a ſtem, ſpreading in branches and leaves until it becomes a full grown tree: the little animal comes into the world ſmall and feeble, but grows through ſeveral ſtages to full ſtature and vigour: our judgement takes forty years in maturing by the rudiments of infancy, the improvements of education, converſe and experience. When the plant has ſtricken root, the ſeed that before involved it rots and periſhes; when the chicken is hatched, the ſhell and other remains of the egg crumble and moulder away: ſo we may preſume that this groſs body of ours, which will decay and return to duſt, is an integument to preſerve and form the embrio of ſome future animal.

We know of but one pre-exiſtent ſtate, I mean that of the womb, and though it be not clear, what Hartley's German friend Stahl affirms, that all the automatic motions of the heart, the arteries, the glands, the digeſtion, were originally voluntary actions of the child, yet we muſt needs acknowledge that upon what paſſes there, depend our conſtitution, our ſtrength, the acuteneſs of our ſenſes, the quickneſs

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ith a few objects ſtriking
ciſed in their underſtand-
d in the ways of men: and
p their full term of years,
eir profeſſions, their man-
ways of thinking! From
that not only this life in
ry to the next, but each
rtune is calculated to fit
he is to fulfill hereafter,
ty wherein the talents
for the ſervice of the
Iſraelites gathering
le away with him
rries m has
ſe-
ed
na-
ring.
ſture,
and

and thereby fattens his flesh and lengthens his wool for the service of man: the silk-worm weaves her web for a safeguard to herself, and at the same time furnishes us with materials for our cloathing and ornament: the fly injects her juices into the oak leaf to raise an apple for hatching her young, and therein supplies us with ink for our correspondence and improvement. So man by his plowing, his planting, his felling, his burning, his draining, his mining, his manufacturing, may be reckoned among the second causes operating upon matter wherein the invisible world has some concern: nor are there wanting Beings to whom his joys and sorrows, successes and disappointments, frailties and miscarriages, may serve for a spectacle, an instruction and warning.

14. In short the more we contemplate the complication of interests, of causes and effects in the visible world, the more ready we shall find ourselves to take this for a sample of the whole: and the more [illegible] reflect on the character of goodness [illegible]dom, the more easily we shall persuad[illegible]es that every provision terminates [illegible] worthy the largeness and extent of [illegible] whatever brings evil, or little adv[illegible] none at all to man, [illegible]ds to th[illegible] benefit of somethi[illegible] and w[illegible]

unaccountable, either in the works of nature or courſes of fortune, has a purpoſe which it does not fail to anſwer. Thus we may look upon corn and cattle as made for the uſes of man becauſe he receives his uſes largely from them, but the central earth which ſerves him only for a baſis to ſupport the ground he ſtands on, the vaſt effuſion of light whereof a few rays only reach his eyes, the wide extended conſtellations which furniſh him with nothing more than a ſpectacle to admire, muſt be deſigned chiefly, and thoſe more diſtant ſtars beyond the reach of human ken ſolely, for the ſervice of other creatures: and man himſelf, much of whoſe time is loſt in ſleep, whoſe actions are in great part unavailing or even hurtfull to himſelf, muſt be ſuppoſed ſet at work for the benefit of ſome inviſible Beings. Yet as the brutes have their enjoyments while employed in the ſervice of man; the ox indulges his appetite in fatning fleſh for his maſter's table, the hen gratifies her deſires in hatching and breeding up chickens for the larder: ſo care is taken that man ſhall enjoy all the accommodations and happineſs conſiſtent with the ſervices he is deſtined to perform.

15. Thus

15. Thus the diſpenſations given to the ſeveral ſets of creatures regard partly themſelves and partly the intereſts of other ſpecies, and it may naturally be expected that thoſe of the higheſt claſs ſhould be preferred: for miſchief falls lighteſt upon the dulleſt capacities, and the interruptions occaſioned by pain makes the leaſt loſs of time to thoſe who have the leaſt important and delectable employments, therefore wiſdom and goodneſs require that evil ſhould be lodged there where it does the ſmalleſt hurt. When we conſider how much of ſkin, bone and tunicle, how much of vital juices, fleſh and parenchyma enters into the compoſition of all terreſtrial animals, we may look upon them as upon a man encumbered with a load of cloaths, who cannot have ſo quick a feeling thro' them as he might upon his naked body. An organization framed all of nerve and fibre muſt ſtrike ſtronger ſenſations, and unembodied ſpirits receiving their notices from one another muſt have more numerous, clearer and livelier perceptions than any we experience. So that man altho' the higheſt actor upon this ſublunary ſtage, has perhaps the loweſt ſtage to act upon in the whole theatre of the univerſe. From theſe conſiderations joined to our idea of infinite goodneſs we may reaſonably conclude that evil, altho'

here

here bearing an inconſiderable proportion to the good, is ſtill more thinly ſcattered in other regions of nature; and the moſt thinking and conſiderate perſons from earlieſt antiquity have been perſuaded that there are ſome ſtates of Being abounding in unmingled happineſs without any tincture of uneaſineſs or ſuffering.

16. We have obſerved before, that ſome have aſcribed the origin of evil to our immerſion into matter, and to the ill uſe of our active powers; but tho' theſe cannot be aſſigned to account for the firſt origin, they may well be the channels through which it is diſperſed among ſentient Beings: and the laſt, as has appeared upon our examination of human nature, is conſequent upon the firſt, for tis the obſtinacy of our habits and turbulency of our paſſions deriving their ſtrength and violence from the ſtate of our organs or courſes of our animal circulation, that raiſe thoſe inordinate deſires continually leading us aſtray. But the inhabitants of the viſible world, being more deeply immerſed in matter than any others we can imagine, and having many parts in their frame not ſubject to the action of the mind, muſt be ſuppoſed to receive more copiouſly

of the noxious ſtream flowing from that channel.

17. But when we conſider what is probably the uſe of evil, namely, to excite the mind to beſtir herſelf in avoiding it, there does not appear a neceſſity it ſhould be diſperſed every where to anſwer that purpoſe. Satisfaction and uneaſineſs are the two hinges whereon our actions turn, nor can we conceive any creatures ſo conſtituted as to proceed upon other motives: if there was no miſchief to be feared and no loſs of ſatisfaction to be incurred, there would be little inducement to act at all, for why need a man do any thing who is in a ſtate of complacence from whence he can never be removed? He that ſhould have no notion of danger would run among horſes and carts, into the fire and all kinds of miſchief: and he that ſhould think his pleaſures could never depart from him would take no pains to ſecure them. But tho' the knowledge and apprehenſion of evil will ſuffice to put us in motion without feeling it ourſelves, there muſt be real ſuffering ſomewhere to raiſe that apprehenſion. Yet a little actual evil may ſpread the idea of it very wide: if one man hurt himſelf grievouſly by his careleſſneſs or obſtinacy, it may make thouſands

ſands ſenſible of the danger attending ſuch a behaviour; and the miſchiefs befalling one ſet of creatures may inſpire others with a caution to guard againſt their approach. For the avoidance of evil having ſo large a ſhare in the action of ſpirits, may juſtly perſuade us that thoſe placed in the beſt conditioned ſtate are liable to innumerable miſchiefs, but ſuch as they can eaſily eſcape, and therefore make no diminution of their happineſs: but the idea of danger, prompting them to take meaſures for eſcaping it, they receive from the contemplation of actual ſuffering among inferior Beings, not from an experience of it in themſelves. Since then a few objects may ſuffice to furniſh matter for that contemplation, we may ſuppoſe them exhibited by creatures deeply immerſed in matter; and that there may not want ſamples of evil in all the regions of the univerſe, the Stars are ſtationed at immenſe diſtances which, by themſelves or the planets rolling round them, are fitted for the reception of ſuch creatures. The repugnance of evil to our ideas of goodneſs I think will warrant our extending the ſuppoſition of it no further than neceſſity requires, and we ſee this neceſſity does not hinder our confining it to the regions of groſs matter, which will reduce it within a very

narrow compaſs: for if every thing corporeal, within the orbit of the furtheſt Comet, were compreſſed into a perfect ſolid, I ſuppoſe it would not form a maſs bigger than the body of the Sun, then the proportion this bears to the whole ſolar vortex will exceed the proportion of evil in nature to good, becauſe even embodied creatures have their ballance of enjoyment in life. Nay we might have grounds to hope that this groſs corporeal ſtate is the only ſeat of evil in nature, and from the moment we get rid of it we ſhall continue exempt from all mixture of uneaſineſs; but we ſhall find reaſons by and by to caution us againſt too great ſecurity, for that there are ſtates of ſuffering elſewhere, into which we may plunge ourſelves by careleſſneſs and ill management.

18. Nevertheleſs there is no reaſon to imagine from any thing occurring either to our obſervation or our thoughts, but that there are more ſtates of compleat happineſs than of ſuffering, or thoſe containing a mixture of both; or elſe that the former are infinitely fuller ſtocked with inhabitants: for this idea agrees beſt with our notion of infinite goodneſs, which we muſt take for the foundation of our theory in matters whereof experience gives no information.

But

But what meaſure of evil is found neceſſary in nature ſtands confined to particular forms of Being, ſo that a few regions ſhare the whole of it amongſt them: nor will this appear an unequal diſtribution ſince the ſame inhabitants migrate from one region into another, whereby every one has an opportunity of taking his full ſhare in the good as well as in the evil; and many glorified ſpirits have attained the height of happineſs by paſſing through the vale of miſery. If ſuch Beings are totally disjoined from matter and receive their perceptions by communication from one another, we may reaſonably ſuppoſe them equal in their condition and their enjoyments; for we know of no difference in the capacities and primary properties of ſpirits, and cannot well imagine them partial in their dealings among themſelves. Hence it follows there muſt be one or more intermediate ſtates to paſs thro' wherein the lot of individuals is unequal: for inequalities here require the like inequalities elſewhere, that every one's account may be ſet even at ſome time or other. But this conſideration alone does not make it neceſſary that evil ſhould extend beyond this terreſtrial manſion, for the ballance may be brought even as well by an

abatement of good as by actual ſuffering. He that has ſtruggled here with diſeaſe, misfortune and diſtreſs, may have ample amends made him in his next ſtate by receiving a larger ſhare of bounty than others around him, altho' the portion allotted them be not alloyed with any pain or uneaſineſs. For an encreaſe of enjoyment will repay actual ſuffering; and ſo we often judge ourſelves, when we chooſe to paſs one day diſagreably for the ſake of more than ordinary pleaſure in the next, rather than paſs both in our common amuſements.

19. Nor is it a contemptible argument of this terrene habitation being the loweſt part of the creation, that ſo little value appears to be ſet upon life by him who is the beſt judge of what is valuable: every one takes notice upon how ſlender a thread it hangs, daily liable to be ſnapped ſhort by a thouſand accidents. Few compleat their full term of years, one half never arrive at manhood, and multitudes are denied an entrance into the world at all. We may obſerve nature almoſt as carefull to provide means of deſtruction as preſervation: ravenous beaſts, venomous animals and poiſonous herbs, are fitted for inſtruments of death; diſeaſes, famines, wars, damps, ſuffocating vapours and peſtilential

tilential airs, ſweep away by numbers; appetite urges men to pernicious exceſſes; many neceſſary occupations run them into dangers; folly leads them into fatal errors; vice plunges them into deſtructive courſes; even virtue ſometimes drives them upon hazardous enterprizes. So that life ſeems to be given, not for the benefit of the individual, but for ſome ſervice done therein to the Whole: and thoſe enjoyments poured plentifully upon it proceed from that unbounded goodneſs which appoints wages to every ſervice and comforts to render the burthen of it eaſy; and one might be almoſt tempted to believe, with ſome of the ancient ſages, that the luckieſt thing could have befaln us was never to have been born, and the next lucky to have been taken away again immediately.

20. Now to ſum up the whole of what has been offered in this chapter, we may gather from the periſhable nature of our bodies and durable nature of our minds and little uſe appearing in many extenſive and operoſe productions obſervable around us, that there are forms of Being beſides this wherewith we are inveſted: from the method conſtantly taken by nature of bringing her works to perfection ſlowly through ſeveral

ſtages, of generating one thing by the corruption of another, and the mutual dependance between the ſeveral parts of this viſible world, that there is a like connection of intereſts running throughout the Whole: from the groſs compoſition of our frame taking in notices only through a few very complicated channels, that we may be capable of ſtronger, clearer and more variety of perceptions than any we now experience: from the nature of the mind that it was deſigned for action, from the nature of action that evil is a neceſſary inducement to excite it, and from the nature of judgement which renders the idea of hurt without actual ſuffering a motive urging to avoid it, that a very little quantity of evil may ſuffice to ſet the ſpiritual world in motion. Thus far we diſcover what may be but not ſo fully as to ſatisfy us in the main point we want, for the quicker ſenſibility of a refined ſtate may render us liable to acuter pains as well as more exalted pleaſures, and the greater variety of perceptions may give room for more of the irkſome as well as the agreable kind, nor can we ſee enough of ſecond cauſes to diſcern what proportion of evil they tend to produce. But when we raiſe our thoughts to the Firſt Cauſe and contemplate the character

racter of wiſdom and goodneſs therein, manifeſted by the works of which we have familiar knowledge and experience, our poſſibility turns into aſſurance: for they will not ſuffer us to entertain a ſuſpicion of evil being inflicted needleſsly, or diſperſed in greater quantities than the welfare and good order of the whole creation require. Therefore we may look upon the enjoyments diſpenſed in every ſtate of Being as given for the ſake of the members, but the troubles and uneaſineſſes annexed as a means conducive to the far greater benefit of ſome others.

21. Nor need we perplex our thoughts with enquiring whether things might not have been originally ſo conſtituted as that evil ſhould not be neceſſary for the production of any good: for if every hurt yield a greater advantage elſewhere and we ourſelves have an intereſt in whatever redounds to the good of the Whole, this may make us contented under it as long as we can retain a firm and lively perſuaſion of its ſo doing. I do not expect that this ſhould entirely take off the ſmart of every violent pain or weight of every preſſing uneaſineſs, for evil were no evil nor the good purpoſes intended by it anſwered if a remedy were conſtantly afforded to prevent it from hurting: but whenever

we

we have the free uſe of our thoughts, theſe reflections may give us a favourable opinion of the univerſe, whoſe regulations are all eſtabliſhed in loving mercy and kindneſs, and a reaſonable expectation of exchanging our preſent condition for a better; provided we do not by our own ill conduct caſt ourſelves upon thoſe few inhoſpitable ſpots, which are the ſink of nature as draining away all the evil from the reſt. But our hope and dependence reſts ſolely upon the character of our Governour, not upon any thing we can diſcern in the tendency of ſecond cauſes to our advantage: yet this need not diſturb us, for if we receive good tis no matter of what ſort or by what inſtruments or channels we receive it. He that ſhould be aſſured of an ample ſupply from a wiſe and indulgent parent, need not be anxious whether it were to come by the poſt or the carrier or an expreſs meſſenger, whether in money or negotiable notes or marketable wares. Therefore we may content ourſelves with the aſſurance of happineſs in general, having no clue to direct us to the particulars whereof it conſiſts. Our reflections and ſenſations here come to us by corporeal organs which we muſt expect to leave behind, and without them there can be neither eating nor drinking, marrying nor giving

giving in marriage, gardens nor prospects, writing nor language, but everything totally dissimilar from what we now experience: and the occupations and enjoyments of another state, as well in kind as degree, such as eye hath not seen nor ear heard neither hath it entered into the heart of man to conceive.

End of PART I. VOL. II.

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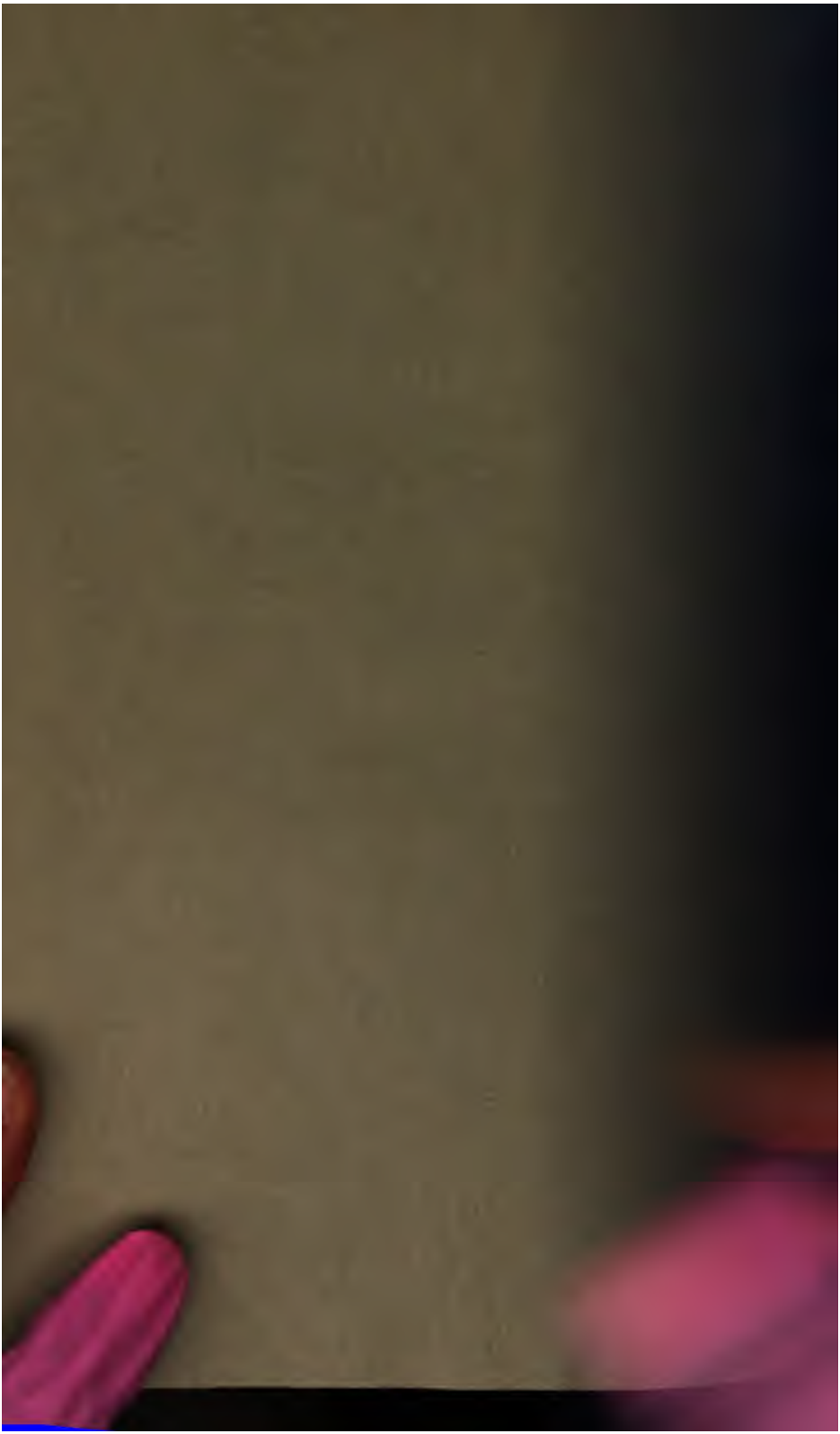
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